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WHY SMART INVESTORS LOSE NO SLEEP OVER PROGRAM TRADING

THE 400 LARGEST PRIVATE COMPANIES IN AMERICA

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DECEMBER 11, 1989

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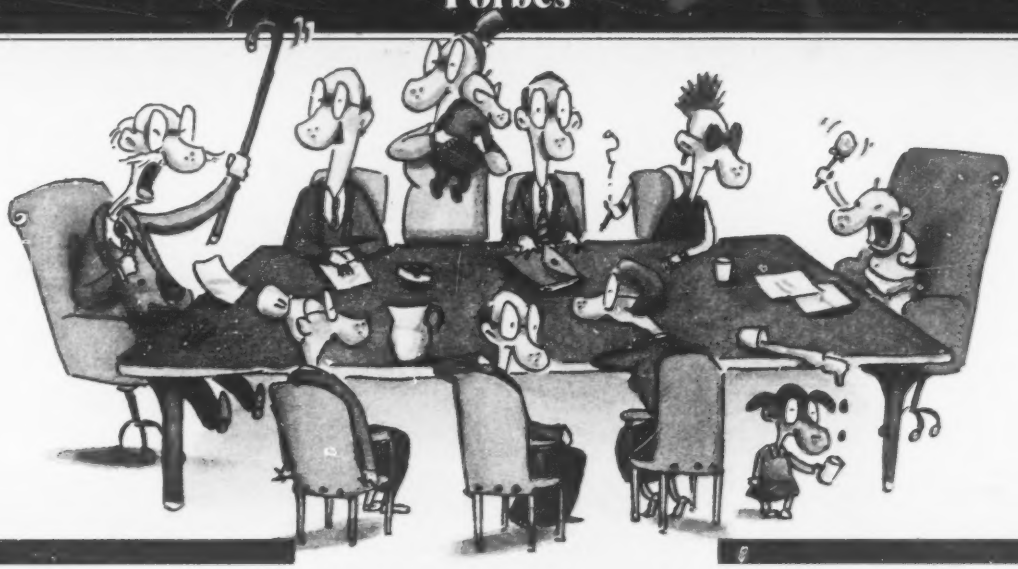

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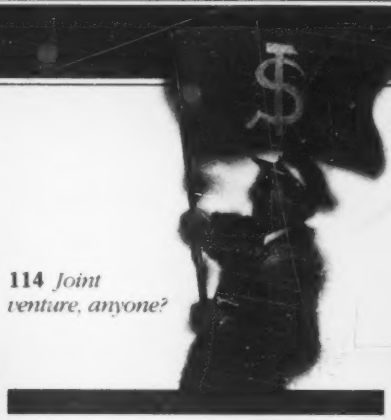

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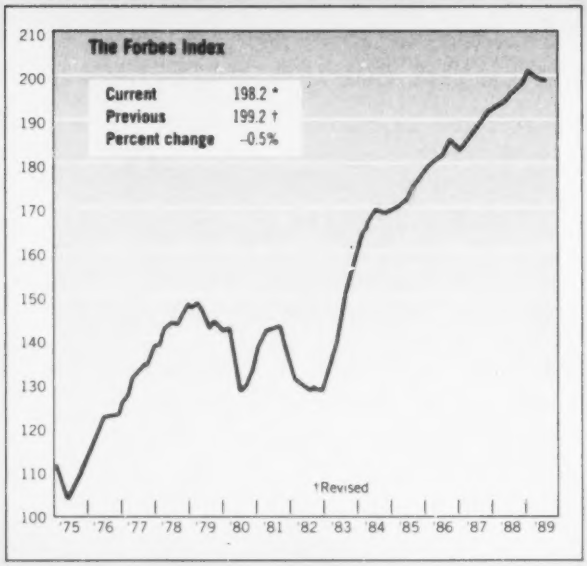
The Forbes Index



Problems in the work force. Despite a near record high in the number of Americans holding jobs (117 million in October), new unemployment claims climbed 11%, to 360,000, the highest total since February 1987. Employment in manufacturing was off 0.7% from its March peak.

Revised figures show industrial production fell twice in the past four months, including a 0.7% drop in October. This measure of factory, mine and utility output has gained less than 1% since the start of 1989. Softness in the auto market contributed to a 1% fall in October retail sales. The preliminary Forbes Index for October is off 0.5%, the largest drop in almost three years.

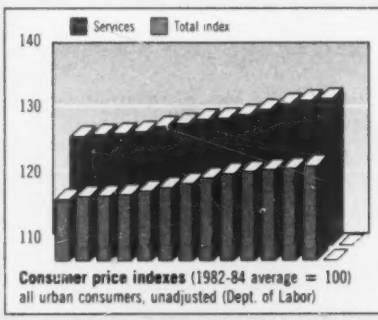
Other key rates	Source	Status
Prime rate	Chase Manhattan Bank	10.5%
Auto sales[1] year to date vs. 1988	Ward's Automotive	-4.0%
Index of leading indicators September vs. August	Dept. of Commerce	0.2%
Trade balance last 12 months	Dept. of Commerce	-$110 bil
Producer price index[2] October vs. 1988	Dept. of Labor	4.9%
GNP est 3rd quarter vs. 2nd—annualized growth	Dept. of Commerce	2.5%

[1]U.S. based manufacturers only as of 11/10//89. [2]Finished goods.

Index Components

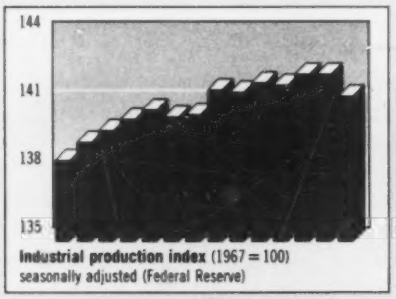
The Forbes Index is a measure of U.S. economic activity composed of 8 equally weighted elements: Total industrial production, new claims for unemployment compensation, the cost of services relative to all consumer prices, new housing starts, total retail sales, the level of new orders for durable goods compared with manufacturers' inventories, personal income, total consumer installment credit.

To measure these 8 elements, FORBES monitors 10 series of U.S. government data. The last 14 months' data for each series are presented below.



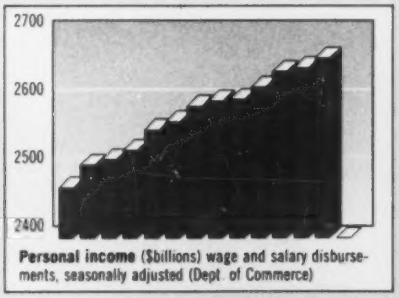
Consumer price indexes (1982-84 average = 100) all urban consumers, unadjusted (Dept. of Labor)

Manufacturers' new orders and inventories ($billions) seasonally adjusted (Dept. of Commerce)

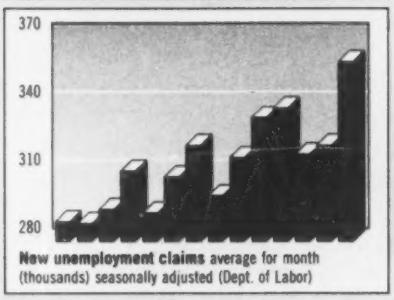


Industrial production index (1967 = 100) seasonally adjusted (Federal Reserve)

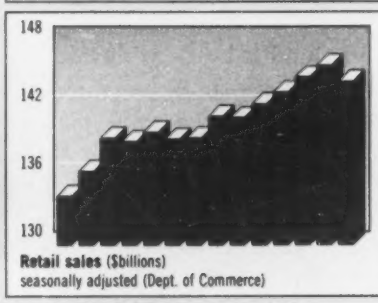
New housing starts (thousands) privately owned, unadjusted (Dept. of Commerce)



Personal income ($billions) wage and salary disbursements, seasonally adjusted (Dept. of Commerce)

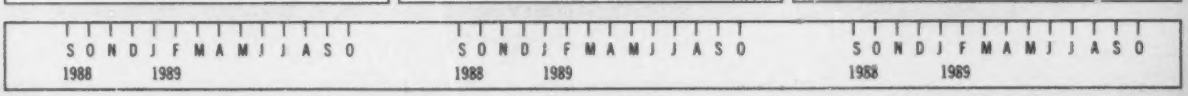


New unemployment claims average for month (thousands) seasonally adjusted (Dept. of Labor)



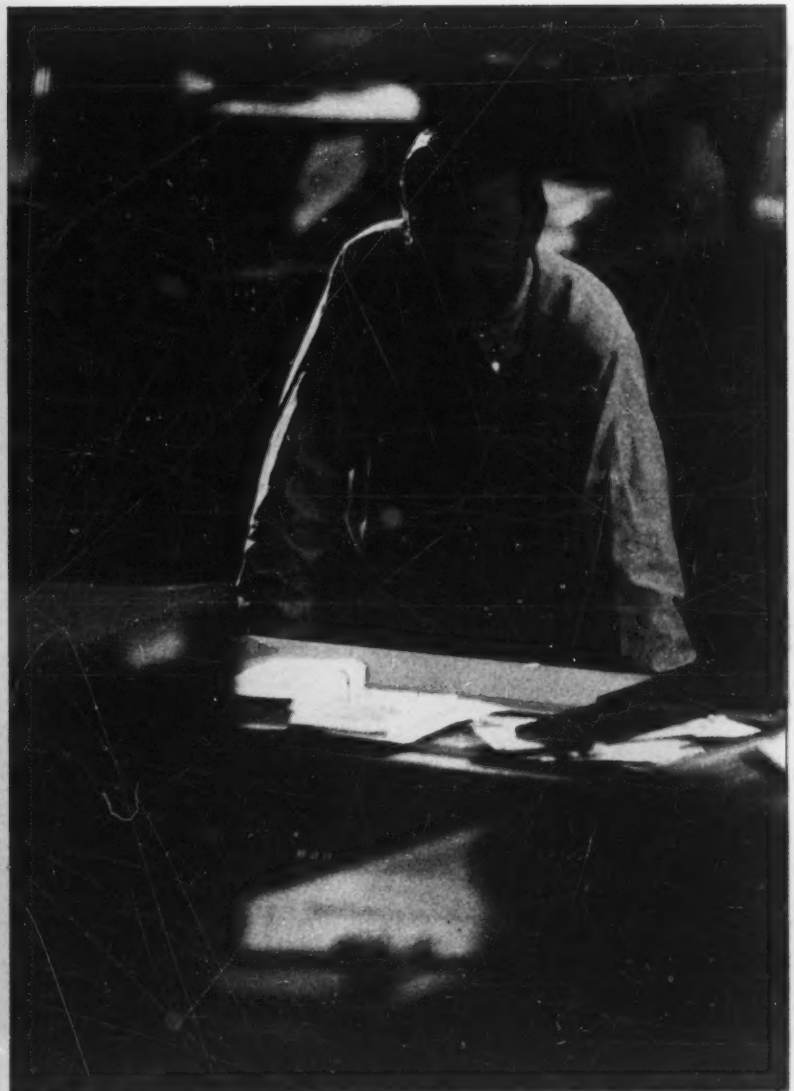
Retail sales ($billions) seasonally adjusted (Dept. of Commerce)

Consumer installment credit ($billions) total, seasonally adjusted (Federal Reserve)



The birth of the southeastern regional banks was hailed on Wall Street as the dawn of a new era in finance. Now reality is descending on the banks.

Too much of a good thing



Charles Gupton

First Wachovia Chief Executive John Medlin
"Loans are being made that no one touched five years ago."

By John H. Taylor

FIVE YEARS AGO, when its ambitions were still modest, Trust Co. of Georgia was the most profitable bank in the country. In 1984 the Atlanta-based bank earned a remarkable 24% on equity and 1.7% on assets. Its balance sheet was a thing of beauty, with nonperforming assets a scant 0.9% of total loans. With good reason, Trust Co.'s stock traded at twice book value.

Then Trust Co.'s ambitions surged. It decided to become a southeastern superregional bank.

In 1985 Trust Co. merged with Sun Banks Inc. in Florida to form SunTrust. A year later SunTrust bought Third National Bank in Tennessee. From $6 billion in 1984, assets jumped to $26 billion in 1986. And so did SunTrust's problems.

Today, SunTrust's return on equity is 17% and return on assets is 1.17%, respectable results to be sure, especially when compared with the big money center banks, which returned a puny 0.78% on assets for the first half of 1989.

Still, Trust Co.'s results are nowhere near the stellar performance of the early 1980s. Ominously, SunTrust's nonperforming assets have climbed to 1.7% of total loans and foreclosed real estate, against the southeastern median of 1.3%. A good portion of the problem is bad real estate loans in Tennessee, the result of the Third National acquisition. SunTrust stock was trading recently at 1.4 times book value.

SunTrust's is not an unusual story. Across the Southeast these days, superregionals like First Union, NCNB and Citizens & Southern have discovered that bigger is not necessarily better. Eagerly anticipated economies of scale didn't always materialize. Borrowers and depositors looking for more personal service and a friendly face fled to smaller community banks. In some cases, the acquired banks were in far worse shape than anyone thought. As a result, some superregional bank stocks that traded above ten times earnings in 1986 have recently been trading for less than eight times earnings.

Compounding the problems, economic growth in the Southeast is slowing. In Florida, for instance, annual deposit growth is expected to drop from its current 11% to 7% by 1995. In the first half of 1989, housing permits were down 4% in the Southeast. Meanwhile, net interest margins have shrunk 10 to 30 basis points over the last year. Real estate problems are

Charles Gupton

First Union Chief Executive Edward Crutchfield
A hastily arranged merger in Georgia led to big problems.

mounting, especially in Florida and Tennessee. Richard Stillinger of Keefe, Bruyette & Woods calculates that nonperforming assets climbed 30% at southeastern banks this year.

Worries John Medlin, chief executive of $23 billion (assets) superregional First Wachovia Corp., "The question you have to ask is, if after seven years of economic growth these banks have more than their normal share of problems, then what will happen when there are real economic problems in the Southeast?"

Medlin believes too many southeastern banks have chased deals with the enthusiasm of a bunch of farm boys on their first trip to the big city. Says he, "The danger in interstate banking is either that the acquirers don't know what they are buying, or they don't institute their credit quality controls and procedures throughout the entire company."

William Norton, a bank specialist with Sterne, Agee & Leach of Birmingham, Ala., puts it this way: "The thing everyone is finding is that when you are courting a girl, she gets real dressed up. But you don't really find out what she looks like until you've made the deal."

First Wachovia's Medlin, 56, is the conscience of southeastern bankers. He, too, has expansionist ambitions, but he has not allowed them to exceed his ability to manage his bank's growth. Thus, in 1985 the Winston-Salem, N.C.-based Wachovia merged with First Atlanta Corp., Georgia's second-largest bank, with assets of $7 billion. Medlin spent the next four years integrating First Atlanta's system into Wachovia's—"my pick and shovel" work, he calls it—and never did another major deal. Today, First Wachovia stock is selling for about 1.63 times book value—the highest multiple of any southeastern regional except NCNB—and its nonperformers are a low 0.4%, less than one-third the southeastern average.

At the same time, Medlin's cross-state rival, Charlotte's First Union Corp., was buying everything in sight. In one 12-month period between late 1985 and 1986, First Union bought five banks with assets totaling $13 billion. First Union announced the last of these, the $3.7 billion (assets) First Railroad & Banking Co. of Georgia, less than two months after Chief Executive Edward Crutchfield said, "We are tied up with so many other deals right now that it's difficult to think of doing another one."

Not surprisingly, then, the First Railroad deal was a disaster. First Union wound up charging off more than $60 million in bad loans. It was three years before First Union was even able to consolidate First Railroad's loose confederation of banks into the First Union system. "It was the single most difficult thing we have done," Crutchfield now says.

Though few southeastern bankers will say so on the record, they concede privately that too many of the superregionals lack the breadth of management to run the companies they have built—especially if the banks they bought have internal problems. "Remember," says Sterne, Agee's Norton, "some of these banks quadrupled in size in a very short time."

Bankers like First Wachovia's Medlin and NCNB Chairman Hugh McColl Jr. see hard times on the horizon. McColl points out that banks have lost some of their traditional sources of profits, such as automobile loans,

The bloom is off the rose

With a few notable exceptions, nonperforming loans have been climbing for the southeastern superregional banks. Meanwhile, the stock prices have generally declined as a percentage of book value. With more trouble ahead, though, this is not the investment opportunity it might normally be.

Bank	Assets ($bil)	Latest 12 months earnings[1] ($mil)	EPS[1]	Yield	Recent price	Nonperforming assets[2] 12/31/88	Nonperforming assets[2] 9/30/89	Price relative to book value 12/31/86	Price relative to book value Recent
NCNB[3]	$54.6	$375	$3.98	2.4%	49⅛	1.20%	1.43%	1.31	1.91
First Union	32.2	287	2.69	4.4	22⅝	1.08	1.09	1.65	1.17
SunTrust	29.4	332	2.56	3.4	22½	0.97	1.68	1.74	1.41
Barnett	28.0	251	4.06	3.4	34⅛	1.22	1.48	1.61	1.30
Sovran	24.3	252	4.43	4.3	38⅞	0.93	1.00	1.71	1.47
First Wachovia	23.5	261	3.78	3.4	40	0.43	0.40	1.65	1.63
Citizens & Southern	23.0	230	3.59	4.2	31⅛	0.85	1.00	1.51	1.43

[1]Source: Standard & Poor's. [2]Nonperforming assets are listed as a percentage of total loans plus foreclosed real estate. [3]NCNB's figures include its Texas bank with the exception of the special asset division.

which are now being made by the finance arms of the car companies. This has forced the banks to scour for new sources of business. Among the options: underwriting municipal bonds, the acquisition of finance companies, more aggressive marketing of the bank's trust services, and expansion into the insurance business.

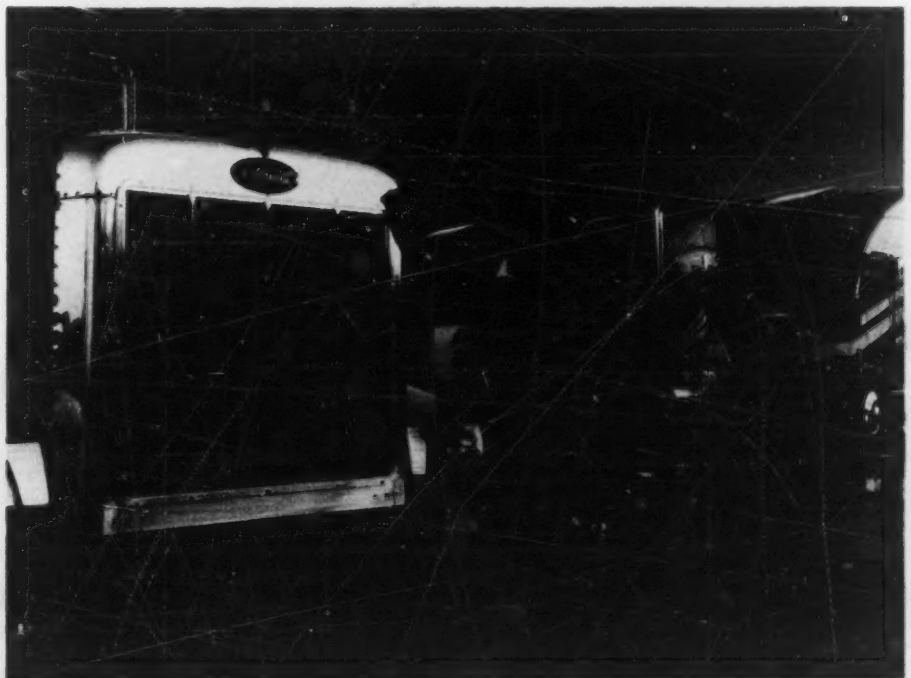
"To be honest," McColl says, "I haven't found a lot of new businesses that we're allowed to get into which offer the promise of great profits."

The real estate losses, meanwhile, continue to mount. While the trouble is nowhere near as severe as in, say, Arizona or New England, many southeastern states now have an oversupply of commercial property. At NCNB, for instance, nonperforming assets (excluding Texas) rose 50%, from $232 million to $348 million, in the third quarter. About half of that increase was problem real estate in Florida. Barnett Banks, Florida's largest bank, has suffered a 36% increase in nonperformers in 1989, with more than half of its problem assets in commercial real estate.

Medlin warns that more problems will follow. "It's just plain human nature that when you go through a long period of growth and economic stability you get complacent," he says. "There are loans being made today that no one would have touched five years ago."

Such marginal lending will, of course, grind to a halt as the banks' assets deteriorate. Or to put it another way, a credit crunch is probably in the making. ■

THE MONEY MAKERS: THE ECONOMICS OF CLASS TRUCKS



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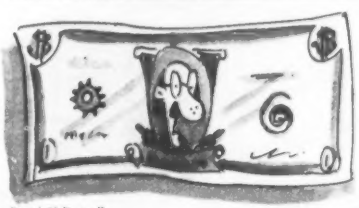
A DIVISION OF PACCAR

Nepotism has a lot of things going for it, and some powerful forces working against it—like taxes and family bickering. How do successful family businesses stay in the family?

Family affairs

By Rita Koselka, Fleming Meeks and Laura Saunders



Patrick McDonnell

AH, THE FAMILY BUSINESS. So much a constituent of the American dream. So beloved (in their words if not in their deeds) by politicians. So common (there are at least 2 million of them with revenues of over $1 million).

And such a delicate thing.

According to Léon Danco, head of the Cleveland-based Center for Family Business, fewer than one-third of family businesses make it into the second generation. And only about half of that group survives to be managed by a third generation.

"Believe me," says Walter Primoff of the New York State Society of CPAs, "the hardest business to keep going successfully—harder even than a Forbes 500 company—is a small family business."

Plenty of these firms are felled by market conditions, interest rates and the other problems that bedevil business generally. But even if they run this gauntlet successfully, family firms face unique problems.

One is paying the owner's estate taxes. At a top federal rate of 55%, death duties can force heirs to sell or liquidate the firm at the founder's death. That's because the tax bill isn't related to the excess cash flow that the business generates. Although the IRS allows for a 15-year payment plan, interest is due at current rates on all the money. The result: For many family firms, paying death taxes "is like doing a leveraged buyout with Uncle Sam," says David Berenson, tax expert at Ernst & Young.

Congressmen often rhapsodize about the glories of the family business, especially when the business is a farm. But by raising capital gains and other asset-related taxes, Congress has gone a long way toward outlawing nepotism. For example, one powerful estate planning tool used to be the so-called estate freeze, in which a company is recapitalized and most of the founder's equity is taken out in the form of preferred stock, with new common shares issued to the next generation. Further appreciation in the business belongs to the children, and the founder's estate owes taxes only on the preferred.

Congress outlawed this technique in 1987 (FORBES, *Oct. 17, 1988*). Now all appreciation is kicked back into the owner's estate and taxed.

But the issue isn't dead. Protest from businesses, especially small ones, may cause Congress to soften the law, perhaps permitting freezes between parents and offspring in exchange for tougher enforcement of the valuation rules to prevent abuses. Since gift tax is due on valuable common handed out to the children, there is a powerful temptation to undervalue it.

Such legislation is even more important in light of a little-noticed recent Tax Court opinion in Snyder v. Commissioner. It is, says Berenson, "a tax technician's nightmare come true" because it calls into question freezes made even before Congress changed the law.

So large does this estate tax issue loom that Frank Pasquerilla, 62, founder of Crown American Corp., a $753 million (1988 revenues) retailing and real estate firm, has estate planners working every day on it. Says his 30-year-old son, Mark, now in the business: "Managing the estate tax questions efficiently is the biggest challenge I face."

Apart from death duties, the family business' other primary natural predator is what is known politely as "family dynamics," and less politely as incompetent or petty-minded offspring, or even parents. Louisville's celebrated Bingham family feuded so long and fiercely that Barry Bingham Sr., the owner of the *Courier-Journal* and the *Louisville Times*, opted to sell the newspapers to Gannett in 1986 rather than leave them to his feuding children to tear apart.

Milliken & Co., a progressive and powerful textilemaker, could come to the same bitter end. After effectively excluding many family members for years from control positions, third generation Chief Executive Roger Milliken, 73, changed the company's certificate of incorporation so as to lock them out of a say in his succession and prevent the company from ever being sold. The result is a series of bitter lawsuits with possibly more to come.

The founder of the company that owns the U-Haul chain gave away much of his stock to his 12 children while he was still running the company. They threw the old man out, then started warring with one another in court.

And even if family members manage to get along, there's

the question of ability. Second generation pet supplies magnate Leonard Stern says bluntly about his Hartz Group, Inc., "I don't believe the next generation should run the business just because I owned it." He will give his children the same shot at managing the company that any employee gets, but if they have neither the desire nor the ability to run it, they won't. Adds Thomas Ochsenschlager, a tax expert with the accounting firm Grant, Thornton: "I have worked with many family firms, and I can tell you that business skills are not inherited."

With all the traps, the wonder is that many family firms do survive, and even thrive. Here are three that do, and how they do it. They have all remained private, which presents a dilemma of its own: With no publicly traded stock, a company cannot always deal with dissident family members who want to cash out. Yet going public exposes the firm to the marketplace of mergers and acquisitions. The largest of the three, Kohler Co., is 102nd on our annual ranking of the largest private firms in America *(table begins on page 220; rules and acknowledgments on page 218).* The other two are, for now, too small.

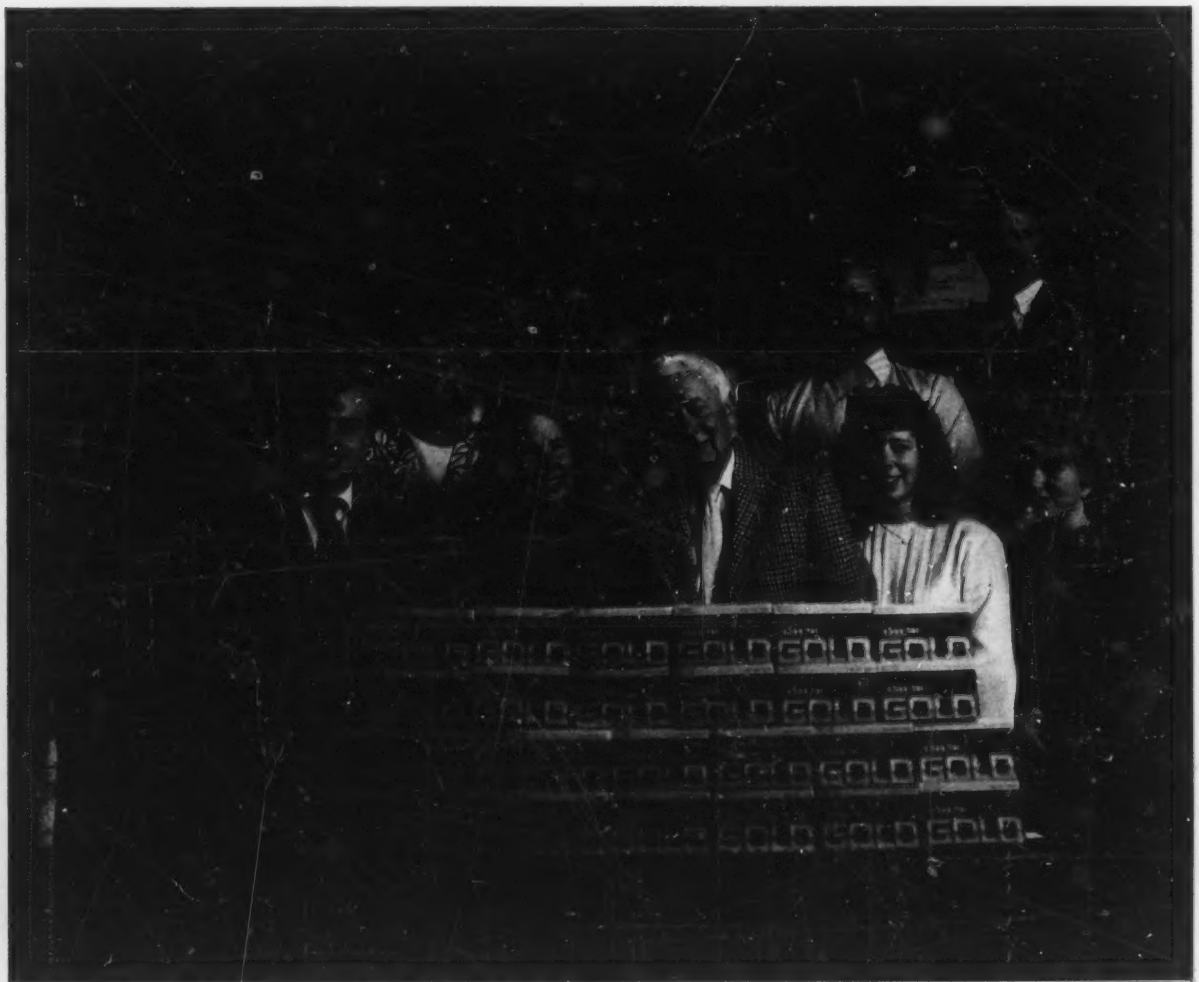
Barton Nelson, Inc.

The 1,000-hour rule

Kansas City, Mo.-based Barton Nelson, Inc. is a family firm par excellence: It is run by founder B.J. Nelson and his wife, Mary, with nine of their ten children. (Their eldest daughter lives out of state and decided not to join the firm.)

How does it work? "Pretty well," says B.J., now 68. Revenues have grown about 30% a year since 1980, to a projected $16 million for 1989, with no slowdown in sight. That's largely because Barton Nelson was not only smart, but lucky: His firm has a toehold in the self-stick adhesive note market, which he puts at $1 billion.

The family did not set out to build a business that would compete with giant Minnesota Mining & Manufacturing Co.'s Post-it notes. Instead, it evolved out of a small advertising agency founded by Nelson *père* in 1961. Several sons got involved during the 1970s, and they bought a printing plant and later on a line of address and memo books to extend the agency's business. The end result was



Eli Reichman

Barton Nelson, Inc.'s Nelson family and its rival to 3M's Post-it notes **Sticking together helps.**

a self-stick note developed independently but at about the same time as 3M's, a fact that 3M has acknowledged legally. Most of Nelson's notes are customized as advertising giveaways.

Along the way, various Nelson siblings have worked with adhesive chemists, engineered machinery, organized assembly lines, devised personnel tests, done artwork and kept records, among other things. Now there is a Nelson in every senior position but two, comptroller and production manager.

Company stock is all held by the family. As a result of a well-timed estate freeze in 1986, B.J. Nelson's stock is all preferred. All the children own common stock, divvied up roughly according to longevity with the firm.

But the family says votes aren't counted because nearly all decisions are reached by consensus. Last year, for example, brothers Dwight, 40, Charles, 37, and Barton III, 44, became convinced of the need to reorganize production along product lines, but brother Gregory, 35, who heads that division, demurred. So all of them talked about it for six months until Gregory changed his mind. Similarly, says Charles, who is in charge of sales, "Some of us wanted to move the business to Colorado about five years ago. We had the votes to do it, but it would have made a couple of people unhappy. So we didn't."

That, says sister Kathy Goscha, 39, who heads personnel and purchasing, is the result of being part of a big family. "You really learn cooperation and negotiation," she says. Indeed, the first six Nelson children grew up in a house with only one bathroom.

But there are clear limits to family togetherness. The Nelson siblings have tacitly agreed, for example, that spouses won't work at the firm. (The lone exception is Herbert Goscha, Kathy's husband, who worked there before they were wed.) "It just isn't a good idea for my wife to be supervised by her brother-in-law," says one Nelson.

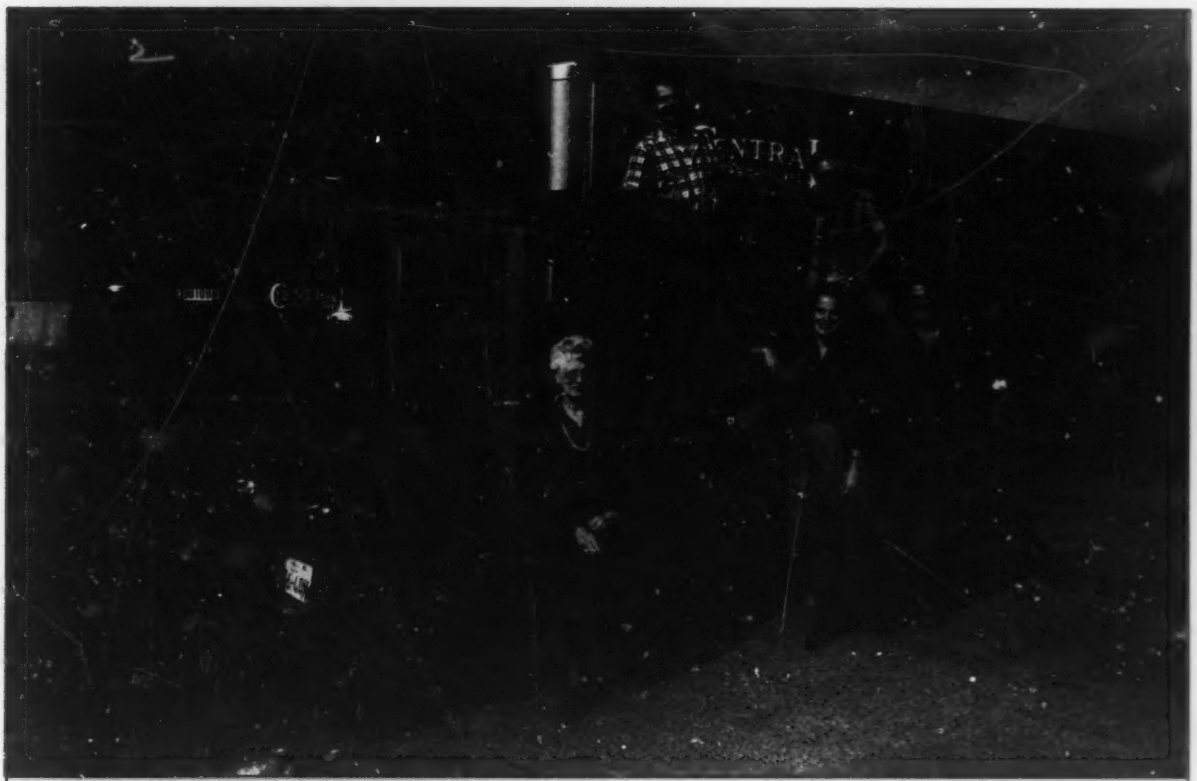
The Nelson clan is also thinking about the 33 grandchildren in the next generation. One already works full time in sales, but all are subject to the "1,000-hour rule": Having worked for Barton Nelson 1,000 hours, an offspring must work 1,000 hours somewhere else before returning. "We need those outside skills," says Kathy Goscha.

Central Freight Lines Inc.

How can you fight with someone you bake bread with?

I thought it would be so easy working for a family business," recalls 28-year-old Frances Callan, personnel representative at Central Freight Lines. Frances is the granddaughter of W. Woody Callan Sr., founder of the $211 million (1988 revenues) Waco, Tex.-based trucking company. "But I think it's harder to prove yourself. You're kind of in the spotlight all the time."

Callan's solution last year was to earn a commercial license to drive a big rig. Since then, she's hauled freight to and from Dallas, Austin, San Antonio and Houston. "It gives you a different perspective on the business," she says, "when you've spent a ten-hour layover in Houston talking with other drivers."



The Callans and the Braswells of Central Freight Lines
"Freight business just gets in your blood."

Ben Weaver

Frances' brother William, 25, started working for the family business on the loading docks at its San Antonio terminal at age 13. "I told my father I didn't want to go to camp. I just wanted to come to work here." After stints as a driver and a terminal manager, he is now a supervisor trainee for the company, working on new construction.

Their father, Woody Jr., 54, has headed the company since 1979. He got his start as an office boy at age 12, and worked nights on Central's Houston loading docks while earning an accounting degree at Rice University.

"When we were growing up, the family and the business were one and the same," recalls Woody's sister, Diana Braswell, 61. Not only did their mother work for the company, but so did four of their six uncles and their grandfather, at one time or another. "I don't remember ever going to the picture show or going out to get watermelon or ice cream cones that we didn't go by the company before we went home."

Diana started out at Central as a file clerk while still in high school. After taking time out to earn a degree in business from Baylor University and to raise a family, she now administers the company's $80 million profit sharing and retirement plan. The plan, participated in by over 90% of the company's 4,500 nonunion employees, owns just under half of the company's stock (which is voted by management). The family owns 30% of the shares—with a book value of about $35 million. The rest of the stock is owned by current and retired employees and an employee stock ownership plan.

Diana's sons, Gordon and Robert, respectively 31 and 34, are expanding the company's computer operations, which track freight and equipment as well as maintenance and inventory in the company's 16 mechanic shops. The brothers, too, came up through the ranks, putting in time in maintenance and on the loading docks along the way.

No "management systems" exist that can heal the rifts and jealousies that are often a part of family life. But the bonds of family life can also be a business' greatest strength.

"Woody was the first person who took me hunting," says Robert Braswell of his uncle. Adds Frances Callan of her aunt, "Every Sunday, when I was growing up, I was making bread with Diana. How can you have a problem with somebody who taught you to bake bread?"

So far, Central Freight has sidestepped the questions of succession and transfer of ownership. Woody Callan Sr., who founded the company at age 20, in 1925, stepped aside at 47 to take up cattle ranching. He retained the chairmanship—putting a nonfamily manager in charge of the daily business—and stepped back into operations in 1979 to help oust that fellow and install his son as president.

He also passed along the bulk of his stock in the company to his two children over a period of 35 years before his death. And the cash to pay the estate taxes on his remaining 7% of the company was raised, not by leveraging the business to buy in a chunk of his stock, but by selling shares to the company's ESOP and retirement plans.

The past decade has not been an easy one for the company. Deregulation of the interstate trucking industry in 1980 cost Central 20% of its business. Despite that and the collapse of the Texas economy, the company's aftertax profit hit a record $11 million in 1988.

Who's next in line at Central Freight? Woody just shrugs at the question. But chances are good that the whole family will be there for the long haul. Says Woody Callan Jr.'s son William: "I think the freight business just gets in your blood, and you can't get it out."

Kohler Co.

No longer unwashed

Kohler Co., the billion-dollar plumbing products firm, is located in Kohler, Wis. (pop. 1,800), the ultimate company town. Smack in the center sits the huge Kohler Co. works—headquarters, a foundry, ceramics plant, engine making plant and design center. Nearby are the Kohler Stables, which breed Morgan horses, the Kohler Farms, where beef cattle is raised, River Wildlife, a private game preserve, and 27 holes of Kohler-developed golf courses. Along the main street are the top-rated hotel in the Midwest, the American Club, a large sports center and a gourmet grocery store, all Kohler-owned.

Gregory Gaymont

Natalie, David and Herbert Kohler of Kohler Co.
From pig troughs to bathtubs.

Presiding over this empire is a family led by Herbert Kohler Jr., 50, a grandson of founder John Michael Kohler. The original Kohler came to the Midwest from Austria as a child with his family and found his way to Sheboygan, Wis. in the early 1870s. He made a good start with a good marriage, to the daughter of the local foundry owner, Lillie Vollrath. In 1873 Kohler and a partner bought the foundry for $5,000.

In 1883 Kohler soldered small legs on to the firm's standard pig trough and enameled the interior

white to make the company's first bathtub, and the business prospered.

In 1900 John Michael Kohler moved the company to what is now Kohler, leaving it to his four sons, who bought out the other outside interests. Two of the sons soon died, leaving Walter Kohler to rule the roost for 35 years.

Walter Kohler thought big. He commenced the first 50-year plan during World War I to develop the town, choosing as planners the famed Olmstead Brothers firm, which designed New York's Central Park. Kohler was governor of Wisconsin from 1929 to 1931.

After Walter's death in 1940, squabbling broke out between Walter's children and Herbert, the last son of the founder, who was running the firm at the time. The squabble was complicated by the fact that Herbert's mother was the second wife of J.M. and the younger sister of Walter's mother.

Herbert won out. Most, but not all, of his nephews left, and several started other successful businesses, including Vollrath Co., a manufacturer of stainless steel products and plastic utensils, and Kohler General Corp., a manufacturer of wrapping machines.

Herbert ran the company until his death in 1968, weathering a six-year strike by the UAW beginning in 1954. Son Herbert Jr. took over in 1974, and has roughly doubled the firm's size (net of inflation) since then.

The Kohler mantle hasn't always been easy to bear. Herbert Kohler Jr. volunteers that he rebelled as a teenager by becoming, ironically, "one of the great unwashed"—a hippie—and says he does not have many close friends in town.

Other Kohlers are still around the town and the company: Herbert Jr.'s wife, Natalie Black, is general counsel and vice president at Kohler; his sister, Ruth De Young Kohler, runs the John Michael Kohler Arts Center; and a cousin manages a Kohler plant in South Carolina. The second (and current) 50-year plan calls for the company to develop the hospitality business—such as the hotel, golf course and shopping center—and expand into furniture manufacturing. It acquired Baker, Knapp & Tubbs, maker of high-end furniture, in 1986.

Succession at a company with 13,000 employees is a serious matter. Herbert Kohler Jr. is thinking about setting up a voting trust, with voting rights given only to Kohlers working in the company. Currently the stock resides in the Kohler Foundation, which Herbert Jr. votes, and various trusts.

Herbert Kohler claims he encourages his three children, all still in their 20s, to follow their own paths. His son works as a foreman in the foundry and plans to go back to school and get an M.B.A. One daughter is an actress in Chicago, while the other daughter is an M.B.A. now working with Booz, Allen & Hamilton as a management consultant. Herbert says they talked about her returning to Kohler after business school, but she wanted to make a name for herself outside of the company, not to mention collect a higher salary than her father would pay her.

But Kohler says the company won't hesitate to go out of the family if necessary, as happened during a short interregnum from 1968 to 1974 before Herbert Jr. took over. Nonfamily member Walter Cleveland ran the company during that period.

Herbert Kohler Jr. speaks for many proprietors of family businesses when he says: "I would rather have non-Kohlers who understand and respect the legacy of the company take over than Kohlers without those values." ■

How to join the Private 400

Most of the companies listed in the table beginning on page 220 have always been in private hands. But 124, just under a third of them, used to be public and were taken private in a leveraged buyout. The rush to go private has cooled considerably since last year. In 1988 there were 39 companies, with combined revenues of $51 billion, that joined our listing via a going-private transaction. This year LBOs added only $34 billion in revenues to the pot.

We consider a private company to be one that does not have publicly traded common stock. The firm may have too few common shareholders to file with the Securities & Exchange Commission or, if it files, its stock is not available to the general public. Most of the 400 companies fall into the former category, including Cargill, which ranked number one with revenues of $43 billion. Bechtel and Avis are examples of the latter: The stock is widely held, but only by employees. A corporation with widely traded bonds but closely held stock would also be considered private.

Our survey includes only firms that operate for profit. Charitable foundations and government agencies are excluded. Also excluded from the survey are mutuals, cooperatives, foreign-owned firms, joint ventures and companies 50% or more owned by another public or private corporation.

Except where noted, the revenue shown is for the most recent fiscal year. Some companies provided estimates while other estimates were developed by FORBES and confirmed by outside sources.

Acknowledgments

We wish to thank the following outside sources that helped us gather data on private companies: *Advertising Age*, NYC; *Atlanta Business Chronicle*, Atlanta; *Auto Age*, Van Nuys, Calif.; *Automotive News*, Detroit; Stephen W. Brener, Stephen Brener Associates, NYC; *California Business*, Los Angeles; *Corporate Report Minnesota*, Minneapolis; *Crain's Chicago Business*, Chicago; *Crain's Cleveland Business*, Cleveland; *Crain's Detroit Business*, Detroit; *Dallas Business Journal*, Dallas; *Feed Stuff Magazine*, Rod Smith, Minnetonka, Minn.; *Florida Trend*, St. Petersburg; *Georgia Trend*, Atlanta; *IDD Information Services*, Terry Dennehy, NYC; Perrin H. Long Jr., Lipper Analytical Securities, NYC; *Los Angeles Business Journal*, Los Angeles; Marvin L. Madeson, Madeson & Associates, St. Louis; John McMillin, Jane Shickich and Kim Walin, Prudential-Bache Securities, NYC; Robert Niehaus, Morgan Stanley, NYC; Alan Mottus, Mottus & Associates, NYC; *Philadelphia Business Journal*, Philadelphia; *Professional Builder*, Des Plaines, Ill.; *Progressive Grocer's Marketing Guide Book 1989*, Stamford, Conn.; *Puget Sound Business Journal*, Seattle; *San Francisco Business Times*, San Francisco; *South Florida Business Journal*, Miami, Fran Wissak, Securities Data Co., Newark, N.J.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
1	1	**Cargill**/intl marketer agri & bulk commodities	$43,000	53,710	Whitney MacMillan	Minneapolis, MN
2	2	**Koch Inds**/petroleum, natural gas, chemicals	16,000e	8,000	Charles Koch	Wichita, KS
3	■	•**RJR Nabisco**/food products, tobacco	14,000e[1]	60,000	Louis V Gerstner Jr	New York, NY
4	4	•**Safeway Stores**/supermarkets	13,612	107,000	Peter A Magowan	Oakland, CA
5	3	**Continental Grain**/commodity trading & processing	13,500	12,000	Donald L Staheli	New York, NY
6	5	**United Parcel Service**/package delivery	11,000	117,000	John W Rogers	Greenwich, CT
7	7	**Mars**/candy manufacturing, pet food, rice	8,541	22,000	Forrest E Mars Jr	McLean, VA
8	6	•**Southland**/convenience stores	7,990	39,057	Jere W Thompson	Dallas, TX
9	9	•**RH Macy**/department stores	7,000	78,000	Edward S Finkelstein	New York, NY
10	8	•**Supermarkets General**/grocery stores, home improve ctrs	5,962	52,000	Kenneth Peskin	Woodbridge, NJ
11	■	•**NWA**/airline	5,630	37,000	Alfred Checchi	St Paul, MN
12	36	**MacAndrews & Forbes Holdings**/cosmetics, bankng, rec eq	5,325e	44,000	Ronald O Perelman	New York, NY
13	15	**Carlson Cos**/worldwide service corporation	5,300	55,000	Edwin C Gage	Minneapolis, MN
14	10	**Peter Kiewit Sons'**/construction, coal mining, packaging	5,100	28,000	Walter Scott Jr	Omaha, NE
15	14	**Publix Super Markets**/grocery stores	4,800	23,500	George W Jenkins	Lakeland, FL
16	11	•**Montgomery Ward & Co**/department stores	4,780	28,954	Bernard F Brennan	Chicago, IL
17	13	•**Stop & Shop Cos**/supermarkets, Bradlees discount dept stores	4,500e	44,000	Lewis G Schaeneman Jr	Boston, MA
18	12	**Bechtel Group**/engineering & construction	4,472	17,500	Stephen D Bechtel Jr	San Francisco, CA
19	24	**Drexel Burnham Lambert**/investment banking, sec brokerage	4,400e	5,500	John Shad	New York, NY
20	16	•**Trans World Airlines**/airline	4,361	31,000	Carl C Icahn	Mt Kisco, NY

New companies on this year's list include leveraged buyout situations like NWA, RJR Nabisco and GAF. The proposed privatization of UAL, however, is still trying to get off the ground.

21	■	**Ernst & Young**[2]/accounting	4,300	70,000	Ray J Groves[3]	New York, NY
22	20	**KPMG**[4]/accounting	4,300	63,700	Larry D Horner	New York, NY
23	17	•**ARA Services**/food svcs, uniform rentals, child care svcs	4,200	125,000	Joseph Neubauer	Philadelphia, PA
24	■	•**Hospital Corp of America**/hospitals & health care facilities	4,111	45,000	Thomas F Frist Jr	Nashville, TN
25	18	•**Beatrice Co**/food processing	4,066	16,400	Frederick B Rentschler	Chicago, IL
26	23	•**American Standard**/bldg, climate control, transport prods	3,716	34,100	Emmanuel Kampouris	New York, NY
27	21	•**Owens-Illinois**/packaging	3,660	46,500	Robert J Lanigan	Toledo, OH
28	33	**American Financial**/insurance, savings & loan	3,634[5]	10,000	Carl H Lindner	Cincinnati, OH
29	25	**Marmon Group**/multicompany	3,507	25,005	Robert A Pritzker	Chicago, IL
30	31	**Arthur Andersen**/accounting	3,400	51,400	Larry Weinbach	Chicago, IL
31	19	**Goldman, Sachs**/investment banking, securities brokerage	3,400e	6,200	John L Weinberg	New York, NY

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Reflects divestiture of Del Monte and other companies. [2]Formed by merger of Ernst & Whinney, ranked 48 last year, and Arthur Young, ranked 52 last year. [3]William L Gladstone is co-CEO. [4]Listed as Peat Marwick Main last year. [5]Excludes revenues from United Brands and other unconsolidated subsidiaries.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
32	44	**Anschutz**/railroads, oil, gas, real estate, mining	$3,200e	23,500	Philip F Anschutz	Denver, CO
33	30	•**Levi Strauss & Co**/apparel	3,120	32,000	Robert D Haas	San Francisco, CA
34	38	**Coopers & Lybrand**/accounting	3,000e	50,000	Peter R Scanlon	New York, NY
35	55	**Cumberland Farms**/convenience strs, petroleum distrib	3,000e	8,500	Demetrios B Haseotes	Canton, MA
36	■	**Deloitte & Touche**[1]/accounting	3,000e	65,000	J Michael Cook	Wilton, CT
37	34	**Lefrak Organization**/real estate development & management	3,000	18,000	Samuel J LeFrak	Rego Park, NY
38	40	**Milliken & Co**/textiles	2,900	20,000	Roger Milliken	Spartanburg, SC
39	32	•**Jack Eckerd**/drugstores	2,875	30,000	Stewart Turley	Clearwater, FL
40	50	**Farley**/fabrics, underwear, boots, auto parts	2,865	46,500	William Farley	Chicago, IL
41	41	**Advance Publications**/communications	2,860e	19,500	SI Newhouse Jr	Staten Island, NY
42	29	**Grand Union**/grocery stores	2,717	22,000	Joseph J McCaig	Wayne, NJ
43	37	•**Revco DS**/drugstores	2,701	27,500	Boake A Sells	Twinsburg, OH
44	35	**Astroline**/oil trading	2,500	70	Fred Boling	Reading, MA
45	45	**HEB Grocery**[2]/grocery stores	2,500e	9,485	Charles C Butt	San Antonio, TX
46	47	**Price Waterhouse**/accounting	2,500	40,770	Joseph E Connor	New York, NY
47	27	**Riklis Family Corp**/variety stores, apparel mfg	2,500e	35,000	Meshulam Riklis	New York, NY
48	63	**Belk Brothers**/department stores	2,400e	30,000	John M Belk	Charlotte, NC
49	43	**H Group Holdings**/hotels	2,400e	40,000	Jay Pritzker	Chicago, IL
50	49	**JM Family Enterprises**/distributor of Toyotas	2,400e	2,300	James M Moran Sr	Deerfield Beach, FL
51	46	**Hallmark Cards**/greeting cards & related prods	2,350e	20,000	Irvine O Hockaday Jr	Kansas City, MO
52	53	**Penske**/truck leasing, diesel mfg, auto dealerships	2,300e	9,700	Roger S Penske	Red Bank, NJ
53	28	•**Burlington Industries**/textiles	2,200	28,000	Frank S Greenberg	Greensboro, NC
54	56	**Finevest Services**/food processing, insur, health care svcs	2,178	14,000	William R Berkley	Greenwich, CT
55	22	•**Borg-Warner**/auto parts, security svcs	2,175	68,000	James F Bere	Chicago, IL
56	60	**McLane**/food distribution	2,160	4,200	Drayton McLane Jr	Temple, TX
57	58	**Meijer**/department & grocery stores	2,120	13,600	Fred Meijer	Grand Rapids, MI
58	278	**RAB Holdings**/health care svcs & supplies, financial svcs	2,100	2,700	Richard A Bernstein	New York, NY
59	107	**Ingram Industries**/consum prods, inland marine trans, coal, oil	2,090e[3]	3,425	E Bronson Ingram	Nashville, TN
60	51	•**Best Products**/general merchandise, jewelry stores	2,080	8,000	Jerry Goldress	Richmond, VA
61	85	**Scoular**/grain storing & trading	2,072	500	Marshall E Faith	Omaha, NE
62	245	•**Metromedia**/cellular phone sys, restaurants, hotels	2,060[3]	18,732	John W Kluge	Secaucus, NJ
63	■	•**Alco Health Services**/distrib pharmaceuticals & related prods	2,058	2,900	JF McNamara	Valley Forge, PA
64	39	**SC Johnson & Son**/specialty chemicals	2,000	12,000	Raymond F Farley	Racine, WI
65	75	**Reader's Digest Association**/publishing & direct mktg	2,000e	7,200	George V Grune	Pleasantville, NY
66	57	**Hearst Corp**/publishing, broadcasting	1,986e	15,000	Frank A Bennack Jr	New York, NY
67	72	**Estée Lauder Cos**/cosmetics	1,920e	10,000	Leonard Lauder	New York, NY
68	65	•**Payless Cashways**/home improvement centers	1,900	15,000	David Stanley	Kansas City, MO
69	258	**Red Apple Cos**/groc & conv strs, refining, real est, aviation	1,900	10,000	John A Catsimatidis	New York, NY
70	66	•**Fort Howard**/paper prods	1,858	16,000	Paul J Schierl	Green Bay, WI
71	61	**Dominick's Finer Foods**/grocery stores	1,850	7,500	Jim DiMatteo	Northlake, IL
72	68	**Cox Enterprises**/newspapers, brdcast, cable tv, auto auctions	1,816	22,000	James C Kennedy	Atlanta, GA
73	71	**Steelcase**/office furniture & systems	1,810	18,500	Frank H Merlott	Grand Rapids, MI
74	73	**Giant Eagle**/grocery stores	1,800	12,000	David S Shapira	Pittsburgh, PA
75	77	**Hy-Vee Food Stores**/grocery stores	1,800e	8,000	Ron Pearson	Chariton, IA
76	64	**Graybar Electric**/electrical equipment wholesaling	1,795	4,600	Edward McGrath	St Louis, MO

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Merger between Deloitte Haskins & Sells, ranked 151 last year, and Touche Ross & Co, ranked 67 last year, expected to be final by year-end. [2]Formerly HE Butt Grocery. [3]Estimate for fiscal year ending December 1989.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
77	76	•**HealthTrust**/hospitals	$1,780e	20,000	R Clayton McWhorter	Nashville, TN
78	69	**George E Warren**/petroleum trading	1,761	35	Thomas L Corr	Vero Beach, FL
79	161	**Domino's Pizza**/pizza delivery & carryout	1,677	60,000	Thomas S Monaghan	Ann Arbor, MI
80	70	•**Colt Industries**/aerospace, automotive, industrial equipment	1,656	15,200	David I Margolis	New York, NY
81	90	**Trammell Crow Group**/real estate develop & mgmt	1,628	12,324	J McDonald Williams	Dallas, TX
82	118	**Lincoln Property**/real estate devel & mgmt	1,617	4,000	A Mack Pogue	Dallas, TX
83	99	**John Alden Financial**/insurance	1,616	1,631	Glendon E Johnson	Miami, FL
84	88	**DHL Worldwide Express**/air express service	1,600	20,000	Patrick Foley	Redwood City, CA
85	98	**Sammons Enterprises**/insurance, cable tv, industrial equip	1,600	6,800	Robert W Korba	Dallas, TX
86	80	**Amway**/household & personal care prods	1,513	7,000	Jay Van Andel	Ada, MI

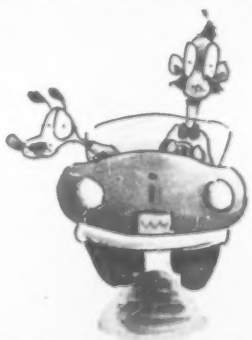
Big Eight accountants are busy with balance sheet consolidations. Ernst & Whinney merged with Arthur Young, and Touche Ross is expected to join with Deloitte Haskins & Sells.

87	129	**BeefAmerica**/meatpacking	1,500	2,400	Joseph Amore	Omaha, NE
88	92	•**Charter Medical**/hospitals & health care facilities	1,500e	13,600	William A Fickling Jr	Macon, GA
89	87	**Delaware North Cos**/food svcs, paramutuals, publshg, metal	1,500	17,500	Jeremy M Jacobs	Buffalo, NY
90	96	**Furr's**/grocery stores	1,500e	10,439	Jan Friederich	Lubbock, TX
91	78	**Union Holdings**/food processing, meatpacking, gas utility	1,500	2,400	Anthony L Geller	Independence, KS
92	62	•**Hillsborough Holdings**/home bldg, nat resources, ind mfg	1,429	8,900	Joe B Cordell	Tampa, FL
93	97	•**Hook-SupeRx**/drugstores	1,407e	12,000	Philip E Beekman	Cincinnati, OH
94	84	**Helmsley Enterprises**/real estate brokerage	1,400	13,000	Harry B Helmsley	New York, NY
95	133	**Holiday Cos**/gasoline & food retailing	1,400e	5,000	Ronald Erickson	Minneapolis, MN
96	176	**William Lyon Cos**/home bldg, apartment & real estate dev	1,390	950	William Lyon	Newport Beach, CA
97	102	**Global Petroleum**/petroleum wholesaling & retailing	1,380	450	Alfred A Slifka	Waltham, MA
98	108	**JMB Realty**/real estate syndication	1,380	17,000	Neil Bluhm	Chicago, IL
99	217	**Trump Organization**/hotels & casinos, real estate devel, airline	1,359e	25,000	Donald J Trump	New York, NY
100	94	**Dunavant Enterprises**/intl & domestic cotton merchant	1,350	2,130	William B Dunavant Jr	Memphis, TN
101	259	**Schwan's Sales Enterprise**/frozen foods	1,350	6,000	Marvin Schwan	Marshall, MN
102	120	**Kohler**/plumbing equip, engines, generators, hotels	1,343	14,300	Herbert V Kohler Jr	Kohler, WI
103	86	•**Reliance Electric**/elec motors, controls, power trans prods	1,303	13,000	John C Morley	Cleveland, OH
104	93	**Connell Rice & Sugar**/hvy equip leasing, food export & import	1,300	200	Grover Connell	Westfield, NJ
105	147	**Polo Ralph Lauren**/apparel, home furnishings and accessories	1,300	2,000	Peter Strom	New York, NY
106	105	**JR Simplot**/food processing, fertilizer, livestock	1,300	9,100	Gordon Smith	Boise, ID
107	109	**Gates**/rubber & formed fiber prods,recharg batteries	1,280	18,000	Charles C Gates	Denver, CO

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Revenues Employees	Chief executive	City, state
108	95	•**Duracell Holdings**/batteries & lighting prods	$1,250	8,000	C Robert Kidder	Bethel, CT
109	104	**Hillman**/real est devel, dist office prods, investments	1,250	3,250	Henry L Hillman	Pittsburgh, PA
110	136	**Oxbow**/oil trading	1,250	300	William Koch	W Palm Beach, FL
111	103	•**Cole National**/specialty retailing	1,247	12,000	Jeffrey A Cole	Cleveland, OH
112	■	•**York International**/air conditioning, heating, refrig equip	1,235	10,000	James T Dresher	York, PA
113	146	•**First Brands**/auto care prods, plastic bags	1,200	3,800	Alfred E Dudley	Danbury, CT
114	206	**Southwire**/metal fabricating, wire & cable manufacturing	1,200	4,068	Roy Richards Jr[1]	Carrollton, GA
115	139	**Wegmans Food Markets**/grocery stores	1,200	5,957	Robert B Wegman	Rochester, NY
116	113	**Frederick Weisman**/imports Toyota vehicles, insurance	1,200	550	Frederick R Weisman	Glen Burnie, MD
117	126	•**Cullum Cos**/supermarkets, drugstores, meatpacking	1,194	4,802	Jack W Evans	Dallas, TX
118	101	**Restaurant Enterprises Group**/restaurants	1,194	29,395	Norman N Habermann	Irvine, CA
119	121	**Edward J DeBartolo**/real est devel & mgmt, dept strs, race track	1,189	15,000	Edward J DeBartolo	Youngstown, OH
120	81	•**Leaseway Transportation**/trucking	1,185	17,000	Richard A Damsel	Beachwood, OH
121	128	**A-Mark Financial**/wholesaler precious metals	1,176e	35	Steven C Markoff	Santa Monica, CA
122	166	**Dyson-Kissner-Moran**/multicompany	1,134	3,542	John A Moran	New York, NY
123	114	**Connell Limited Partnership**/metal recycling, industrial equip	1,131	3,185	William F Connell	Boston, MA
124	■	•**Foodmaker**/Jack in the Box, Chi-Chi's restaurants	1,115	3,500	Jack W Goodall Jr	San Diego, CA
125	119	**Frank Consolidated Enterprises**/auto dealerships & travel mgt	1,115	1,550	Zollie S Frank	Des Plaines, IL
126	106	•**Wickes Lumber**/wholesaling & retailing of building materials	1,105	6,800	William Hessler	Vernon Hills, IL
127	112	**Transammonia**/trading fertilizers & petroleum prods	1,103	191	Ronald P Stanton	New York, NY



The 15 automobile dealerships listed on these pages have combined revenues of $9.4 billion. The largest: Frank Consolidated Enterprises, with $1.1 billion in sales.

128	123	•**Avis**/auto rental	1,100	14,000	Joseph V Vittoria	Garden City, NY
129	135	**Lear Siegler Seating**/automobile seats	1,100e	8,000	Kenneth Way	Southfield, MI
130	144	**Perdue Farms**/poultry processing	1,100	12,080	Donald W Mabe	Salisbury, MD
131	74	**Gulf States Toyota**/auto importing	1,086	940	Jerry Pyle	Houston, TX
132	■	**Golodetz Corp**/trading, agri, real estate, venture capital	1,076	1,450	Marc L Ginzberg	New York, NY
133	134	•**Kash n' Karry Food Stores**/grocery stores	1,070	4,994	Ronald J Floto	Tampa, FL
134	122	**Gilbane Building**/commercial construction	1,056	1,015	Paul J Choquette Jr	Providence, RI
135	79	**Knoll Intl Holdings**/office furnishings, polyurethane foam	1,053	11,000	Marshall S Cogan	New York, NY
136	137	**Simpson Investment Co**/lumber, logging, plywood doors	1,050e	2,500	William G Reed Jr	Seattle, WA
137	125	**Sweet Life Foods**/food wholesaling	1,050	3,000	Julian Leavitt	Suffield, CT
138	164	**Maritz**/marketing & business services	1,047	5,000	William E Maritz	Fenton, MO

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]James Richards is co-president.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
139	■	•**JP Foodservice**/food distributor	$1,045	5,000	James Miller	Hanover, MD
140	127	•**Service America**/food service & vending	1,043	19,000	Steven Leipsner	Stamford, CT
141	110	**Dillingham Construction**/construction, engineering	1,022	1,200	Donald K Stager	Pleasanton, CA
142	162	**Tops Markets**/supermarkets	1,007	3,000	Savino P Nanula	Buffalo, NY
143	141	**Andersen Corp**/windows, patio doors	1,000	4,000	W Arvid Wellman	Bayport, MN
144	130	**Chilewich Sons**/commodity trading, cattle, meatpacking	1,000	850	Simon Chilewich	New York, NY
145	142	**Crowley Maritime**/maritime transportation	1,000	4,000	Thomas B Crowley	San Francisco, CA
146	131	**E&J Gallo Winery**/wine	1,000e	2,950	Ernest Gallo	Modesto, CA
147	153	**Grocers Supply Co**/food wholesaling	1,000	1,100	Milton Levit	Houston, TX
148	190	•**Guardian Industries**/flat glass, fiberglass insulation, plastics	1,000e	7,000	William Davidson	Northville, MI

The five health care service companies were all once public: Charter Medical, Epic Healthcare, HealthTrust, Hospital Corp. of America and Republic Health.

149	205	**Lennox International**/climate control equipment	1,000	8,500	John W Norris Jr	Dallas, TX
150	■	**PA Bergner**/department stores, insurance, food svc	1,000e	20,000	Alan R Anderson	Milwaukee, WI
151	154	**Raley's**/grocery stores	1,000	6,700	Thomas P Raley	W Sacramento, CA
152	279	**Save Mart Supermarkets**/grocery stores	1,000[1]	7,000	Robert Piccinini	Modesto, CA
153	143	**Schnuck Markets**/grocery stores	1,000	4,200	Donald O Schnuck	Bridgeton, MO
154	234	**VT**/auto, aircraft & boat dealerships	990	2,900	Cecil Van Tuyl[2]	Merriam, KS
155	150	**Clark Enterprises**/commercial construction, real estate	980e	5,000	A James Clark	Bethesda, MD
156	148	**Thrifty Oil**/petroleum, convenience stores	980e	1,350	Ted Orden	Downey, CA
157	163	**Golden State Foods**/food process & distributing for McDonald's	960e	1,620	James E Williams	Pasadena, CA
158	115	•**LaSalle Energy**/natural gas pipeline	960	1,900	Roy H Bettis Jr	Dallas, TX
159	198	**First American Bankshares**/bank holding	953e	5,730	Jack W Beddow	Washington, DC
160	226	**Tishman Realty & Construction**/construction mgmt & real est	951	800	John Tishman	New York, NY
161	165	•**Epic Healthcare Group**/hospitals & health care facilities	950e	10,000	Kenn S George	Irving, TX
162	116	**Hartz Mountain**/pet food, real estate, publishing	950e[3]	5,000	Leonard Stern	Harrison, NJ
163	179	•**Pueblo International**/grocery stores	950	4,000	David Morrow	Pompano Bch, FL
164	185	**Schreiber Foods**/food processing	950e	2,250	Robert G Bush	Green Bay, WI
165	156	**Tauber Oil**/petroleum & petrochemical wholesaling	942	49	OJ Tauber Jr	Houston, TX
166	174	•**MWC**/pharmaceutical wholesaler	930	900	Mel Whitmire	Folsom, CA
167	160	•**Levitz Furniture**/furniture retailing	930	6,752	Robert M Elliott	Boca Raton, FL
168	173	**GLI Holding**/Greyhound bus lines	924	12,800	Fred G Currey	Dallas, TX
169	151	**DeMoulas Super Markets**/grocery stores	920	7,500	TA DeMoulas	Tewksbury, MA

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Includes Fry's Foods acquired April 1989. [2]Larry Van Tuyl is co-chief executive. [3]Estimate for fiscal year ending December 1989.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
170	200	•**Essex Group**/wire, cable & insulation	$920	3,851	John M Bruce	Fort Wayne, IN
171	187	**Amerco**/U-Haul vehicle rental	918	12,000	Edward J Shoen	Phoenix, AZ
172	138	•**Woodward & Lothrop/John Wanamaker**[1]/retailing	910	15,000	Arnold H Aronson	Washington, DC
173	89	**Food Services of America**[2]/food distributor, insurance	900e	3,000	Thomas J Stewart	Kent, WA
174	152	**Golub**/grocery stores	900e	5,000	Lewis Golub	Schenectady, NY
175	257	**Metallurg**/metals mining	900	3,500	Michael A Standen	New York, NY
176	167	**MorningStar Foods**/dairy & food processing	900	4,000	James A Bach	Dallas, TX
177	184	**Randall's Food Markets**/grocery stores	900	2,250	Robert R Onstead	Houston, TX
178	267	**Eby-Brown Cos**/candy, tobacco, food & merchandise distrib	893	830	Richard Wake[3]	Aurora, IL
179	145	•**Amsted Industries**/RR & industrial equip, bldg mtrls	889	8,100	Robert H Wellington	Chicago, IL
180	169	•**Kendall Co**/health care prods	887	10,000	J Dale Sherratt	Boston, MA
181	172	**Hughes Markets**/dairy, grocery stores	885	4,800	Roger K Hughes	Los Angeles, CA
182	117	**Fidelity Investments**/investment mgmt, discount brokerage	872	5,700	Edward C Johnson 3d	Boston, MA
183	196	**McDevitt & Street**/general contractor	868	2,700	E Robert Street	Charlotte, NC
184	170	**Merchants Distributors**/food wholesaling	867	3,000	Boyd George	Hickory, NC
185	219	**Science Applications International**/r&d, systems integration	865	10,000	Dr RJ Beyster	San Diego, CA
186	182	**American Protection Inds**/alarms, flower del, Franklin Mint	850	4,700	Stewart Resnick	Los Angeles, CA
187	177	**Duchossois Industries**/railroad equipment	850e	8,700	Richard L Duchossois	Elmhurst, IL
188	175	**84 Lumber**/retails building materials	850	3,000	Joseph A Hardy Sr	Eighty Four, PA
189	111	**Gillett Holdings**/broadcasting, meatpacking, resorts	850	2,400	George N Gillett Jr	Denver, CO

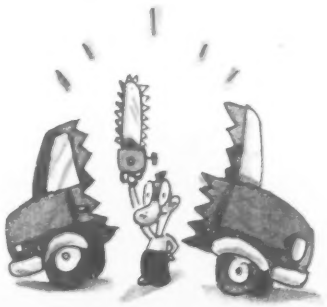
This is probably the last year on the private company list for Reader's Digest Association ($2 billion revenues) and First Brands ($1.2 billion). Both have announced plans to go public. Central Newspapers (ranked 383 last year) went public in September.

190	235	**Johnston Coca-Cola Bottling**/soft drink bottling	850	4,600	Summerfield Johnston Jr	Chattanooga, TN
191	191	**Jordan Co**/multicompany	850	9,000	John W Jordan II	New York, NY
192	171	**Pacific Holding**/multicompany	850e	4,400	David H Murdock	Los Angeles, CA
193	189	**Specialty Materials**[4]/flat-rolled stainless steel	849	1,300	Claude F Kronk	Pittsburgh, PA
194	181	**Ferrellgas**/propane gas	847	2,915	James E Ferrell	Liberty, MO
195	178	**Hunt Consolidated**/oil & gas exploration & refining, marketing	847	2,500	Ray L Hunt	Dallas, TX
196	■	•**Sheller-Globe**/steering wheels, dashboards, auto components	844	10,600	Alfred G Grava	Detroit, MI
197	197	**Holman Enterprises**/auto dealerships, parts remanufacturing	820	1,875	Joseph S Holman	Pennsauken, NJ
198	192	•**JPS Textile Group**/carpet, elastics, yarn, industrial fabrics	820	9,200	William J DeBrule	Greenville, SC
199	■	•**Mohasco**/furniture & carpet	814	6,275	Robert W Hatch	Fairfax, VA
200	■	**Harvard Industries**/auto & aerospace equip	800e	3,500	William D Hurley	Farmingdale, NJ

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Listed as Taubman Investment last year. [2]Listed as Services Group of America last year. [3]Thomas Wake is co-president. [4]Listed as J&L Specialty Products last year.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
201	158	**Potamkin Manhattan**/auto dealerships	$800	2,000	Victor Potamkin	New York, NY
202	■	•**Uniroyal Chemical**/chemicals	800	2,600	Robert J Mazaika	Middlebury, CT
203	203	•**Arkansas Best**/trucking	797	11,421	Robert A Young III	Fort Smith, AR
204	180	**AppleTree Markets**[1]/grocery stores	796	2,800	Fred Lummis	Houston, TX
205	159	**Hunt Corp**/general contractor	788	2,800	Robert C Hunt	Indianapolis, IN
206	251	**Brookshire Grocery**/grocery stores	780e	6,300	Bruce G Brookshire	Tyler, TX
207	183	**Esprit de Corp**/apparel	780e	4,000	Corrado Federico	San Francisco, CA
208	214	•**Farm Fresh**/grocery stores	780	3,000	Michael E Julian	Norfolk, VA
209	242	**Young's Market**/food & liquor wholesaling	780	1,500	Vernon O Underwood Jr	Los Angeles, CA
210	■	•GAF/chemicals, building materials	771	4,366	Samuel J Heyman	Wayne, NJ



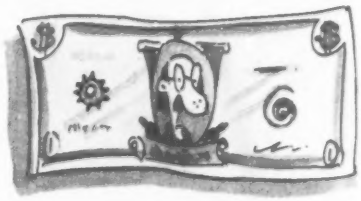
Four major auto rental companies are on this list: Avis, National, Budget and Alamo. Hertz, the biggest car renter, is 49% owned by Ford and 26% owned by Volvo, while Thrifty was purchased by Chrysler in May 1989.

211	■	**Lechmere**/discount stores	769	4,000	C George Scala	Wolvern, MA
212	201	**Young & Rubicam**/advertising, communications	758	11,000	Alexander Kroll	New York, NY
213	■	•**Super Rite Foods**/grocery stores	757	1,500	Alex Grass	Harrisburg, PA
214	238	**Crown American**/depart stores, real estate mgmt & devel	753	13,000	Frank J Pasquerilla	Johnstown, PA
215	237	•**Insilco**/metal fabricating, electronics, commun, paint	752	9,000	Joel L Reed	Midland, TX
216	212	**Associated Metals & Minerals**/steel trading	750	235	Stefan E Eliel	White Plains, NY
217	312	•**International Controls**/auto parts & truck mfg	750e	3,700	Davud R Markin	Kalamazoo, MI
218	■	•**Lear Siegler**/vehicle components, industrial equip	750	13,000	Richard W Vieser	Livingston, NJ
219	193	**Oklahoma Publishing**/publishing, broadcasting, entertainment	750	8,000	Edward L Gaylord	Oklahoma City, OK
220	■	•**Shapell Industries**/land developer, construction	747	420	Nathan Shappell	Beverly Hills, CA
221	■	•**Horace Mann**/insurance	746	1,575	Paul J Kardos	Springfield, IL
222	266	**Bath Iron Works**/shipbuilding	742	11,200	William E Haggett	Bath, ME
223	210	•**Tracor**/precision instruments	741	10,800	Mellon C Baird	Austin, TX
224	220	**Johnson & Higgins**/insur brokerage, risk mgmt consultant	731	7,396	Robert V Hatcher Jr	New York, NY
225	391	•**Kohl's Department Stores**/department stores	730	9,000	William Kellogg	Menomonee Falls, WI
226	227	**Exide**/auto & industrial batteries	725	5,500	Arthur Hawkins	Reading, PA
227	233	**C&S Wholesale Grocers**/wholesale grocery distributors	720	850	Richard B Cohen	Brattleboro, VT
228	260	**WWF Paper**/fine paper distributor	715	650	Edward V Furlong Jr	Bala Cynwyd, PA
229	288	**PMC**/specialty chemicals, foam, plastics	710e	4,500	Philip Kamins	Sun Valley, CA
230	236	•**Pullman**/transportation equip, auto parts	710	7,300	Robert A Kenkel	Princeton, NJ
231	211	**Rich Products**/frozen foods, pro sports, broadcasting	710	5,900	Robert E Rich Jr	Buffalo, NY

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Formerly Safeway Texas Division.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
232	262	•**Parsons Corp**/engineerng, design & construction	$707	8,000	William E Leonhard	Pasadena, CA
233	286	**Morse Operations**/auto dealerships	706	819	EJ Morse Sr	Fort Lauderdale, FL
234	■	**Huntsman Chemical**/chemicals, plastics	704	586	Jon M Huntsman	Salt Lake City, UT
235	246	•**Ampex**/tv, broadcast equip, magnetic tape	702	6,700	Max O Mitchell	Redwood City, CA
236	307	**Club Corporation International**/athletic clubs, resorts	700	15,000	Robert H Dedman	Dallas, TX
237	325	**Harbert**/commcl construct, real est dev, oil & gas	700	3,000	John M Harbert III	Birmingham, AL
238	216	•**National Car Rental**/car rental	700	8,500	Vincent A Wasik	Minneapolis, MN
239	209	**TRC/Friendly's** & other restaurants	700	7,800	Donald N Smith	Itasca, IL
240	218	**Wilbur-Ellis**/distributing farm supplies & chemicals	700e	1,900	Brayton Wilbur	San Francisco, CA
241	240	**United Van Lines**/moving services	697	950	Maurice Greenblatt	Fenton, MO
242	■	•**S&A Restaurant Corp**/restaurants	690	30,000	Donald J Slater	Dallas, TX
243	188	•**Cone Mills**/textiles	688	8,702	Dewey L Trogdon	Greensboro, NC
244	■	**Enterprise Leasing Co**/auto leasing & related svcs	687	4,500	Jack Taylor	St Louis, MO
245	239	**Mellon Stuart Holdings**/construction	685	1,100	Robert H Luffy	Pittsburgh, PA
246	■	**Homeland**/grocery stores	680	6,200	Max E Raydon	Oklahoma City, OK
247	231	**Roseburg Forest Products**/forest prods	680	5,200	John J Stephens	Roseburg, OR
248	244	**King Kullen Grocery**/grocery stores	675e	2,500	John B Cullen	Westbury, NY
249	323	•**AFG Industries**/flat glass manufacturing	662	6,000	RD Hubbard	Fort Worth, TX
250	■	•**New Hampshire Oak**[1]/specialty chemicals & auto prods	662	3,700	Michael D Dingman	Hampton, NH
251	■	**Ohio Mattress**/mattresses, waterbeds, sofabeds	661	5,500	Malcolm Candlish	Cleveland, OH



57 of these companies have helped put their owners on The Forbes Four Hundred list of the richest people in America. Among the private-company billionaires are the Newhouses of Advance Publications, the Mars family of Mars, Inc., and Stephen Bechtel Jr. of Bechtel Group.

252	223	**Brenlin Group**/metal fabricating, steel	660e	4,000	David L Brennan	Akron, OH
253	271	**The Andersons**/agribusiness, consumer prods	657	835	Richard P Anderson	Maumee, OH
254	221	**Arcata Graphics**/book & magazine printing	650	6,976	Edward L Scarff	Baltimore, MD
255	207	**Braman Enterprises**/auto dealerships	650	825	Norman Braman	Miami, FL
256	334	**Coca-Cola Bottling Co of Chicago**/soft drink bottling	650e	3,500	Marvin J Herb	Chicago, IL
257	310	**Flying J**/integrated petroleum	650	1,800	O Jay Call	Brigham City, UT
258	276	**Gordon Food Service**/food distributing	650e	1,600	Paul Gordon	Grand Rapids, MI
259	■	•**Mayfair Supermarkets**/grocery stores	650	1,740	Stanley P Kaufelt	Elizabeth, NJ
260	232	**Tang Industries**/metal fabricating & distributing	650e	3,000	Cyrus Tang	Elk Grove Vill, IL
261	256	•**Jim Walter**/building materials	650	3,300	Kenneth E Hyatt	Tampa, FL
262	249	•**Warnaco**/apparel	649	11,618	Linda J Wachner	New York, NY

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Formerly Henley Manufacturing.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
263	254	•Big V Supermarkets/grocery stores	$648e	1,500	David G Bronstein	Florida, NY
264	253	Drummond/coal	647	3,300	Garry N Drummond	Jasper, AL
265	265	Encyclopaedia Britannica/reference books, educational svcs	633e	1,200	Robert P Gwinn	Chicago, IL
266	284	JM Huber/natural resources	632	3,957	Michael W Huber	Edison, NJ
267	319	Schottenstein Stores/department & furniture stores	628	8,000	Jerome Schottenstein	Columbus, OH
268	213	•Channel Home Centers/home improvement centers	625	7,500	Malcolm L Sherman	Whippany, NJ
269	255	B Green & Co/food wholesaling, grocery stores	625	1,731	Bernard Green	Baltimore, MD
270	292	Continental Cablevision/cable broadcasting	622	6,000	Amos B Hostetter Jr	Boston, MA
271	■	Watt Industries/real estate	622	800	Raymond A Watt	Santa Monica, CA
272	■	•Ethan Allen/furniture, accessories, rugs	620	5,400	M Farooq Kathwari	Danbury, CT

53 of the companies on this list wholesale or retail food. Their revenues total $80 billion.

273	331	Worldmark/bldg materials, intermediate aluminum prods	620	1,600	Dean Rhoads	N Palm Beach, FL
274	287	Inland Group/financing, insurance & brokerage	619	1,500	Daniel L Goodwin	Oak Brook, IL
275	225	Oppenheimer & Co/sec brokerage, invest banking	617	2,400	Stephen Robert	New York, NY
276	■	Edgcomb/steel service center	617	1,639	Henry Kramer	Bensalem, PA
277	243	Farmstead Foods/meatpacking	615	3,200	Keith Barnes	Albert Lea, MN
278	299	Towers, Perrin, Forster & Crosby/consulting, reinsurance	613	4,900	James E Kielley	New York, NY
279	264	•Mayflower Group/moving svcs, bus transportation	612	2,400	Michael L Smith	Indianapolis, IN
280	329	Marley/cooling towers, boilers, pumps	611	4,700	Robert J Dineen	Shawnee Msn, KS
281	362	ICC Industries/chemicals	610	1,200	John J Farber	New York, NY
282	222	McCarthy/general contractors, construction	610	2,000	Michael M McCarthy	St Louis, MO
283	277	Minyard Food Stores/grocery stores	610	5,400	Liz Minyard[1]	Coppell, TX
284	250	Phelps/commercial construction	610	2,300	Jerry L Morgensen	Greeley, CO
285	272	Irvine Co/real estate development	607	350	Donald Bren	Newport Bch, CA
286	297	•The Musicland Group/music stores	603	4,915	Jack W Eugster	Minneapolis, MN
287	274	Bartlett & Co/grain, flour, cattle feed	600e	540	Paul D Bartlett Jr	Kansas City, MO
288	■	•Electrolux/vacuum cleaners	600	7,306	Dennis Johnson	Marietta, GA
289	366	WL Gore & Assocs/Gore-tex fabrics, electronics, indus prods	600	5,071	Robert W Gore	Newark, DE
290	289	Jitney-Jungle Stores of America/grocery stores	600e	3,000	WH Holman Jr	Jackson, MS
291	313	McKinsey & Co/consulting	600	3,300	Frederick W Gluck	New York, NY
292	326	SnyderGeneral/air quality control equipment	600	7,300	Richard W Snyder	Dallas, TX
293	280	•White Swan/food wholesaling	600	1,800	Ronald E Elmquist	Fort Worth, TX

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Gretchen Williams is co-chairman.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
294	248	**Battelle Memorial Institute**/research & development	$597	7,546	Dr Douglas E Olesen	Columbus, OH
295	269	**JM Petroleum**/wholesale petroleum, trucking	590	180	James C Musselman	Dallas, TX
296	342	**Hendrick Management**/auto dealerships, sportswear	589	1,400	JR Hendrick III	Charlotte, NC
297	204	•**Bell & Howell**/publishing, info systems	589	6,733	Nils Johansson[1]	Skokie, IL
298	320	**LL Bean**/outdoor sporting goods retailing & mfg	580	3,000	Leon A Gorman	Freeport, ME
299	157	**Axel Johnson**/telecommunications, ind prods, energy	580	1,600	Paul E Graf	New York, NY
300	281	**Barton-Malow Enterprises**/construct mgmt, gnrl contract	579	1,200	Ben C Maibach III	Southfield, MI
301	285	**Lykes Bros**/food processing, insurance	575e	2,500	Thompson L Rankin	Tampa, FL
302	229	**MediaNews Group**/newspapers	572e	5,728	W Dean Singleton	Houston, TX
303	291	**Pamida**/discount department stores	568	6,000	C Clayton Burkstrand	Omaha, NE
304	361	**Horsehead Industries**/zinc, carbon, graphite, envir svcs	567e	2,800	William E Flaherty	New York, NY
305	301	**GSC Enterprises**/food wholesaling	567	1,200	Michael K McKenzie	Sulphur Sprgs, TX
306	■	**Whiting-Turner Contracting**/comm construct & contract	561	1,250	W Hackerman	Towson, MD
307	343	**McLouth Steel**/steel	560e	2,200	Edward L Sambuchi	Trenton, MI
308	■	**Thermadyne Holdings**/industrial mgmt	560	3,500	James N Mills	St Louis, MO
309	327	•**Hall-Mark Electronics**/electronics, computer systems	557	1,140	Joseph W Semmer	Dallas, TX
310	293	**UIS**/auto parts	557	6,200	Harry Lebensfeld	New York, NY
311	168	•**DynCorp**/technical & aviation svcs	556	15,000	Dan Bannister	Reston, VA
312	298	**Schneider National**/trucking	556	6,500	Donald J Schneider	Green Bay, WI
313	308	**American Food Groups**[2]/meatpacking	550e	1,800	Carl Kuehne	Green Bay, WI

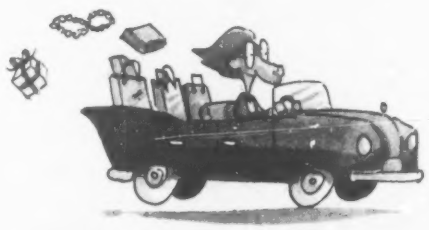
High-technology firms are the exception on this list. Among the few are Ampex, Tracor, Science Applications International and Hall-Mark Electronics.

314	275	**Chase Enterprises**/real estate, insurance, communications	550	5,200	David Chase	Hartford, CT
315	■	**Mercury Stainless**/stainless steel prods	550	1,250	Dietrich M Gross	Wheeling, IL
316	241	•**Ticor**/title insurance & real estate tax svcs	549	5,730	Winston V Morrow	Los Angeles, CA
317	228	**Boy's Markets**[3]/supermarkets	547	1,000	Peter Sodini	Highland Park, CA
318	270	**North Pacific Lumber**/wholesales forest, agri, steel prods	545	380	TJ Tomjack	Portland, OR
319	230	**Placid Oil**/oil & gas exploration	541	1,100	CD Brown	Dallas, TX
320	■	**Schal Associates**/construction	540e	350	Richard C Halpern	Chicago, IL
321	273	•**Morse Shoe**/shoes	536	4,300	Manuel Rosenberg	Canton, MA
322	356	•**AutoZone**/auto parts stores	535	5,800	JR Hyde III	Memphis, TN
323	318	•**Northwestern Steel & Wire**/carbon steel, rod & wire prods	535	2,865	Robert M Wilthew	Sterling, IL
324	■	•**Florida Steel**/steel manufacturing & marketing	532	2,423	Edward Flom	Tampa, FL

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Acting chief executive. [2] Formerly Consolidated Beef Industries. [3]Listed as American Breco last year.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
325	306	**CC Industries**/home furnishings, paper, real estate devel	$525	6,400	Neele E Stearns	Chicago, IL
326	321	**Coca-Cola Bottling Co of NY**/soft drink bottling	525	3,000	James Maloney	Greenwich, CT
327	309	**Coulter Electronics**/medical & electronic equipment	525e	5,200	Wallace H Coulter	Hialeah, FL
328	311	**Griffin Group**/real estate, casino, radio stations, tv	525	8,000	Merv Griffin	New York, NY
329	■	**Geneva Steel**/steel	521	2,550	Joseph A Cannon	Orem, UT
330	330	•**Joy Technologies**/mining & industrial equipment	521	4,300	Marc F Wray	Pittsburgh, PA
331	■	•**Minstar**/boats & sporting goods	518	4,900	Irwin L Jacobs	Minneapolis, MN
332	355	**Rock-Tenn**/paperboard & packaging prods	516	4,300	A Worley Brown	Norcross, GA
333	■	**Abco Markets**/grocery stores	515	5,800	Edward Hill	Phoenix, AZ
334	■	•**Budget Rent a Car**/auto & truck rental & leasing	512	5,540	Clifton E Haley	Chicago, IL



One private automaker lands on this list: Youngstown, Ohio-based Cafaro Co. A shopping mall developer, Cafaro also makes the limited-production Avanti luxury car.

335	300	•**Dr Pepper/Seven-Up Cos**/soft drinks	510	842	John R Albers	Dallas, TX
336	381	**MA Mortenson**/general contracting, construction manager	510	1,300	MA Mortenson Jr	Minneapolis, MN
337	335	**Racetrac Petroleum**/convenience strs, gasoline retailing	506	1,700	Carl Bolch Jr	Atlanta, GA
338	322	**Walton Monroe Mills**/textiles	505	5,000	G Stephen Felker	Monroe, GA
339	368	**Alling & Cory**/paper, packaging & business prods	504	1,100	Samuel T Hubbard Jr	Rochester, NY
340	317	**Georgia Crown Distributing**/beverage distribution	502e	600	Donald M Leebern Jr	Columbus, GA
341	263	•**PIE Nationwide**/trucking	502	8,000	Charles F Rodgers	Jacksonville, FL
342	302	**Aarque Cos**/metal fabricating	500	2,300	R Quintus Anderson	Jamestown, NY
343	377	**Asplundh Tree Expert**/tree trimming for elec utilities	500	13,500	Edward K Asplundh	Willow Grove, PA
344	304	**Bacardi Imports**/distilled spirits & wine	500	280	Juan Grau	Miami, FL
345	339	**Chemcentral**/chemical distributing	500	750	H Daniel Wenstrup	Chicago, IL
346	328	**Lewis Homes Group**/home building, real estate development	500	920	Richard A Lewis	Upland, CA
347	■	**Little Caesar International**/pizza restaurants	500e	10,532	Michael Ilitch	Farmington Hls, MI
348	■	**Mennen**/personal care prods	500	3,000	L Donald Horne	Morristown, NJ
349	295	•**Republic Health**/hospitals	500	6,000	Bryan P Marsal	Dallas, TX
350	■	**Stevedoring Services of America**/ship loading	500	2,000	FD Ricky Smith	Seattle, WA
351	351	**Warren Equities**/petroleum prods, convenience stores	500	1,700	Warren Alpert	New York, NY
352	■	**Washington Corp**/heavy construct, mining, public utilities	500	3,000	Dennis Washington	Missoula, MT
353	316	**Wheaton Inds**/glass manufacturing	500	10,000	Frank H Wheaton Jr	Millville, NJ
354	261	**Wyatt**/petroleum wholesaling	500e	85	Kirk F Blanchard	New Haven, CT
355	333	**HB Zachry**/general contractor	500e	7,500	H Bartell Zachry Jr	San Antonio, TX

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate.

The 400 Largest Private Companies in the U.S.

Rank this year	Rank last year	Company/business	Revenues ($mil)	Employees	Chief executive	City, state
356	■	•**Esstar**/building materials, elec tools	$499e	4,400	Robert A Haversat Sr	New Haven, CT
357	■	**Halstead Industries**/copper tubing	499	2,400	William B Halstead	Greensboro, NC
358	■	•**Bibb**/textiles	497	7,100	Thomas C Foley	New York, NY
359	■	**Menasha**/pkg, printing, plastics, forest prods	492	3,500	WH Drew	Neenah, WI
360	363	**National Cleaning Contractors**/bldg & elev maintenance svcs	490e	24,000	Michael Sweig	New York, NY
361	199	**Ruffin Cos**/petrol trading, convenience strs, handtrucks	489	800	Phil G Ruffin	Wichita, KS
362	■	•**Envirodyne Industries**/sausage casings, plastics	488	4,500	Donald P Kelly	Oakbrook, IL
363	392	**Lusk Co**/residential construction	487	500	John D Lusk	Irvine, CA
364	357	**ER Carpenter**/polyurethane foam	485	6,200	Stanley F Pauley	Richmond, VA
365	268	**World-wide Volkswagen**/auto distributing	484	250	Victor Elmaleh[1]	Orangeburg, NY
366	347	**Rosenthal Cos**/auto dealerships	483	1,235	Robert M Rosenthal	Arlington, VA
367	■	**Charlie Thomas Auto World**/auto dealerships	482	1,200	Charlie Thomas	Houston, TX
368	340	**Day & Zimmermann**/engin, consult, bus svcs, real est	480	14,000	Harold L Yoh Jr	Philadelphia, PA
369	390	**Humiston-Keeling**/wholesale drug distribution	474	185	Burton H Olin	Chicago, IL
370	352	**Investors Management**/restaurants	474	18,500	James H Maynard	Raleigh, NC
371	349	**United Co**/coal, oil, gas, real estate, financial svcs	473	1,275	James W McGlothlin	Bristol, VA
372	379	**Wawa**/convenience stores	472	1,733	Richard D Wood Jr	Wawa, PA
373	283	**HCB Contractors**/general contracting, construction mgmt	471	2,000	Lawrence A Wilson	Dallas, TX
374	359	**Bill Heard Enterprises**/auto dealerships	470	1,500	Bill Heard Jr	Columbus, GA
375	364	•**Pay 'N Pak**/home improvement centers	463	2,364	John Markley	Kent, WA
376	■	**Cafaro Company**/shopping center devel, auto mfg	460e	4,350	Anthony Cafaro	Youngstown, OH
377	■	**Catalyst Energy**/alternative producer of elec & steam energy	460	760	Tom B Pickens III	New York, NY
378	294	**Austin Industries**/general contracting, construct, engineering	456	6,500	William T Solomon	Dallas, TX
379	353	**Curry Auto Group**/auto dealerships	454	800	Bernard F Curry Jr	Scarsdale, NY
380	336	**Koll**/real estate development, general contractor	454	1,000	Donald M Koll	Newport Beach, CA
381	337	**Dobbs Brothers Management**/auto dealerships	453	1,350	Jimmy Dobbs III	Memphis, TN
382	338	**Schwegmann Giant Super Markets**/grocery stores	452	4,800	John F Schwegmann	New Orleans, LA
383	■	**Automanage**/auto dealerships	450	1,431	Michael L Dever	Cincinnati, OH
384	367	**Booz, Allen & Hamilton**/management & technology consult	450e	3,725	R Michael McCullough	New York, NY
385	350	•**Ceco**/building materials	450	6,500	Erwin E Schulze	Oakbrook Terr, IL
386	389	**Haworth**/office furniture	450	3,400	Richard G Haworth	Holland, MI
387	374	**Home Interiors & Gifts**/wholesale decorative accessories	450	1,500	Donald J Carter	Dallas, TX
388	344	**Meadowdale Foods**/grocery stores, food wholesaling	450e	1,670	David K Page	Detroit, MI
389	345	**Moyer Packing**/meatpacking & processing	450e	1,100	Curtis F Moyer	Souderton, PA
390	■	**Prospect Motors**/auto dealerships, fleet sales	450	74	William Halvorson	Jackson, CA
391	370	**Transnational Motors**/wholesaler & distrib of Mazdas	450	125	Robert L Hooker	Grand Rapids, MI
392	■	**Jervis B Webb**/material handling equip & systems	450	2,500	Jervis C Webb	Farmington Hls, MI
393	■	**DiFeo Automotive Network**/auto dealerships	448	950	Sam DiFeo	Jersey City, NJ
394	378	**Alamo Rent A Car**/car rental	445	3,500	Michael S Egan	Fort Lauderdale, FL
395	382	**Journal Communications**/newspapers, broadcasting, printing	443	3,900	Thomas J McCollow	Milwaukee, WI
396	380	**Almacs**/grocery stores	443e	1,150	Joseph Burkle	East Providence, RI
397	373	**Flint Ink**/chemicals, construction	440	2,590	CW Flint Jr	Detroit, MI
398	369	**McWane**/pipe mfg, water treatment equip	440e	3,100	JR McWane	Birmingham, AL
399	■	**Specialty Retailers**/specialty stores	440	6,400	Bernard Fuchs	Houston, TX
400	■	**Spalding & Evenflo**/sporting goods, baby prods	439e	2,950	Donald J Byrnes	Tampa, FL

■ Not on last year's list. • Went private via leveraged buyout since 1984. e: Estimate. [1]Frank Stanton is co-chairman.

The 400 Largest Private Companies in the U.S.

This is an alphabetical listing of the 400 largest private companies in the U.S. For those companies taken private since 1984, the year the transaction was completed is provided. The companies are ranked by revenues starting on page 220.

Company	Rank	Company	Rank	Company	Rank
A-Mark Financial	121	LL Bean	298	Connell Rice & Sugar	104
Aarque Cos	342	Beatrice Company/1986	25	Continental Cablevision	270
Abco Markets	333	Bechtel Group	18	Continental Grain	5
Advance Publications	41	BeefAmerica	87	Coopers & Lybrand	34
AFG Industries/1988	249	Belk Brothers	48	Coulter Electronics	327
Alamo Rent A Car	394	Bell & Howell/1988	297	Cox Enterprises	72
Alco Health Services/1989	63	Best Products/1988	60	Crowley Maritime	145
John Alden Financial	83	Bibb/1985	358	Crown American	214
Alling & Cory	339	Big V Supermarkets/1987	263	Cullum Cos/1988	117
Almacs	396	Booz, Allen & Hamilton	384	Cumberland Farms	35
Amerco	171	Borg-Warner/1987	55	Curry Auto Group	379
American Financial	28	Boy's Markets	317	C&S Wholesale Grocers	227
American Food Groups	313	Braman Enterprises	255	Day & Zimmermann	368
American Protection Industries	186	Brenlin Group	252	Edward J DeBartolo	119
American Standard/1988	26	Brookshire Grocery	206	Delaware North Cos	89
Ampex/1987	235	Budget Rent a Car/1989	334	Deloitte & Touche	36
Amsted Industries/1986	179	Burlington Industries/1987	53	DeMoulas Super Markets	169
Amway	86	Cafaro Company	376	DHL Worldwide Express	84
Arthur Andersen	30	Cargill	1	DiFeo Automotive Network	393
Andersen Corp	143	Carlson Cos	13	Dillingham Construction	141
The Andersons	253	ER Carpenter	364	Dobbs Brothers Management	381
Anschutz	32	Catalyst Energy	377	Dr Pepper/Seven-Up Cos/1984	335
AppleTree Markets	204	CC Industries	325	Dominick's Finer Foods	71
ARA Services/1984	23	Ceco/1986	385	Domino's Pizza	79
Arcata Graphics	254	Channel Home Centers/1986	268	Drexel Burnham Lambert	19
Arkansas Best/1988	203	Charlie Thomas Auto World	367	Drummond	264
Asplundh Tree Expert	343	Charter Medical/1988	88	Duchossois Industries	187
Associated Metals & Minerals	216	Chase Enterprises	314	Dunavant Enterprises	100
Astroline	44	Chemcentral	345	Duracell Holdings/1988	108
Austin Industries	378	Chilewich Sons	144	DynCorp/1988	311
Automanage	383	Clark Enterprises	155	Dyson-Kissner-Moran	122
AutoZone/1987	322	Club Corporation International	236	Eby-Brown Cos	178
Avis/1986	128	Coca-Cola Bottling Co of Chicago	256	Jack Eckerd/1986	39
Bacardi Imports	344	Coca-Cola Bottling Co of NY	326	Edgcomb	276
Bartlett & Co	287	Cole National/1984	111	84 Lumber	188
Barton-Malow Enterprises	300	Colt Industries/1988	80	Electrolux/1987	288
Bath Iron Works	222	Cone Mills/1984	243	Encyclopaedia Britannica	265
Battelle Memorial Institute	294	Connell Limited Partnership	123	Enterprise Leasing Co	244

The 400 Largest Private Companies in the U.S.

Company	Rank
Envirodyne Industries/1989	362
Epic Healthcare Group/1988	161
Ernst & Young	21
Esprit de Corp	207
Essex Group/1988	170
Esstar/1989	356
Estée Lauder Cos	67
Ethan Allen/1989	272
Exide	226
Farley	40
Farm Fresh/1988	208
Farmstead Foods	277
Ferrellgas	194
Fidelity Investments	182
Finevest Services	54
First American Bankshares	159
First Brands/1986	113
Flint Ink	397
Florida Steel/1988	324
Flying J	257
Food Services of America	173
Foodmaker/1988	124
Fort Howard/1988	70
Frank Consolidated Enterprises	125
Furr's	90
GAF/1989	210
E&J Gallo Winery	146
Gates	107
Geneva Steel	329
Georgia Crown Distributing	340
Giant Eagle	74
Gilbane Building	134
Gillett Holdings	189
GLI Holding	168
Global Petroleum	97
Golden State Foods	157
Goldman, Sachs	31
Golodetz Corp	132
Golub	174
Gordon Food Service	258
WL Gore & Assocs	289
Grand Union	42
Graybar Electric	76
B Green & Co	269
Griffin Group	328
Grocers Supply Co	147
GSC Enterprises	305
Guardian Industries/1985	148
Gulf States Toyota	131
H Group Holdings	49
Hallmark Cards	51
Hall-Mark Electronics/1988	309
Halstead Industries	357
Harbert	237
Hartz Mountain	162
Harvard Industries	200
Haworth	386
HCB Contractors	373
HealthTrust/1987	77
Bill Heard Enterprises	374
Hearst Corp	66
HEB Grocery	45
Helmsley Enterprises	94
Hendrick Management	296
Hillman	109
Hillsborough Holdings/1988	92
Holiday Cos	95
Holman Enterprises	197
Home Interiors & Gifts	387
Homeland	246
Hook-SupeRx/1986	93
Horace Mann/1989	221
Horsehead Industries	304
Hospital Corp of America/1989	24
JM Huber	266
Hughes Markets	181
Humiston-Keeling	369
Hunt Consolidated	195
Hunt Corp	205
Huntsman Chemical	234
Hy-Vee Food Stores	75
ICC Industries	281
Ingram Industries	59
Inland Group	274
Insilco/1988	215
International Controls/1987	217
Investors Management	370
Irvine Co	285
Jitney-Jungle Stores of America	290
JM Family Enterprises	50
JM Petroleum	295
JMB Realty	98
Axel Johnson	299
SC Johnson & Son	64
Johnson & Higgins	224
Johnston Coca-Cola Bottling	190
Jordan Co	191
Journal Communications	395
Joy Technologies/1986	330
JP Foodservice/1989	139
JPS Textile Group/1988	198
Kash n' Karry Food Stores/1988	133
Kendall Co/1988	180
Peter Kiewit Sons'	14
King Kullen Grocery	248
Knoll International Holdings	135
Koch Inds	2
Kohler	102
Kohl's Department Stores/1986	225
Koll	380
KPMG	22
LaSalle Energy/1987	158
Lear Siegler/1987	218
Lear Siegler Seating	129
Leaseway Transportation/1987	120
Lechmere	211
Lefrak Organization	37
Lennox International	149
Levi Strauss & Co/1985	33
Levitz Furniture/1985	167
Lewis Homes Group	346
Lincoln Property	82
Little Caesar International	347
Lusk Co	363
Lykes Bros	301
William Lyon Cos	96
MacAndrews & Forbes Holdings	12
RH Macy/1986	9
Maritz	138
Marley	280
Marmon Group	29
Mars	7
Mayfair Supermarkets/1989	259
Mayflower Group/1986	279
McCarthy	282
McDevitt & Street	183
McKinsey & Co	291
McLane	56
McLouth Steel	307
McWane	398
Meadowdale Foods	388
MediaNews Group	302
Meijer	57

The 400 Largest Private Companies in the U.S.

Company	Rank
Mellon Stuart Holdings	245
Menasha	359
Mennen	348
Merchants Distributors	184
Mercury Stainless	315
Metallurg	175
Metromedia/1984	62
Milliken & Co	38
Minstar/1988	331
Minyard Food Stores	283
Mohasco/1989	199
Montgomery Ward & Co/1988	16
MorningStar Foods	176
Morse Operations	233
Morse Shoe/1987	321
MA Mortenson	336
Moyer Packing	389
The Musicland Group/1988	286
MWC/1988	166
National Car Rental/1986	238
National Cleaning Contractors	360
New Hampshire Oak/1987	250
North Pacific Lumber	318
Northwestern Steel & Wire/1988	323
NWA/1989	11
Ohio Mattress	251
Oklahoma Publishing	219
Oppenheimer & Co	275
Owens-Illinois/1987	27
Oxbow	110
PA Bergner	150
Pacific Holding	192
Pamida	303
Parsons Corp/1984	232
Pay 'N Pak/1988	375
Payless Cashways/1988	68
Penske	52
Perdue Farms	130
Phelps	284
PIE Nationwide/1986	341
Placid Oil	319
PMC	229
Polo Ralph Lauren	10
Potamkin Manhattan	201
Price Waterhouse	46
Prospect Motors	390
Publix Super Markets	15
Pueblo International/1988	163
Pullman/1988	230
RAB Holdings	58
Racetrac Petroleum	337
Raley's	151
Randall's Food Markets	177
Reader's Digest Association	65
Red Apple Cos	69
Reliance Electric/1986	103
Republic Health/1986	349
Restaurant Enterprises Group	118
Revco DS/1986	43
Rich Products	231
Riklis Family Corp	47
RJR Nabisco/1989	3
Rock-Tenn	332
Roseburg Forest Products	247
Rosenthal Cos	366
Ruffin Cos	361
S&A Restaurant Corp/1989	242
Safeway Stores/1986	4
Sammons Enterprises	85
Save Mart Supermarkets	152
Schal Associates	320
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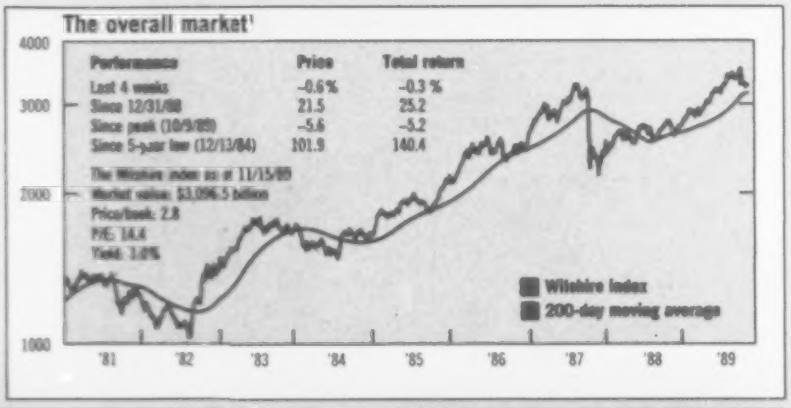
The Forbes Wall Street Review

Edited by Eric S. Hardy

The razing of the Berlin Wall may spell yet more bad news for military contractors, according to George D. Shapiro, a Salomon Brothers analyst. He points out the defense budget has been falling (in real terms) the past five years, and new East-West optimism may accelerate that decline. Since January, S&P's defense stock index is up 16%, not so good compared with the 22% gain for the Wilshire index. In the latest two-week period, most market-cap-weighted stock averages declined slightly. But the equal-weighted version of the Wilshire index was up 0.2%.



Closeup on the Market

Index or investment	Price	2-week change
[illegible]	1,327.74	–0.1%
[illegible]	21.97	0.2
[illegible]	2,632.58	–0.5
[illegible]	340.54	–0.2
[illegible]	188.76	0.0
[illegible]	372.15	0.0
[illegible]	455.94	–0.2
[illegible]	334.59	–0.6

Index or investment	Price or rate	2-week change
Europe, Australia, New Zealand and Far East[2] (EAFE) a dollar denominated capitalization weighted index	966.90	0.6%
Institutional[3] Approximately 200 stocks with high institutional ownership	114.44	–0.8
Individual[3] Approximately 200 stocks with low institutional ownership	106.76	–0.2
Technology Hambrecht & Quist index	250.59	–2.6
Gold[4] (Composite quote of 6 major dealers)	$391.30	4.6
Yen[4] (per $U.S.)	143.86	0.4
Commodity index[4] (CRB futures index, 1967 = 100)	230.49	1.7
Oil[4] (W Texas Intermediate)	$19.65	–2.0
T Bills[4] (90 days)	7.63%	–15 basis points[5]
Broker loan rate[4]	9.75%	–25 basis points

The Best Performing Stocks

Company	Price	2-week change	P/E	Reason
[illegible]	36½	67%	NA	Board of directors approves extensive merger with Anne Brown Bowel Ltd.
[illegible]	37¼	27	21	Investor group (Chartwell Associates) purchases 5% equity stake
[illegible]	24¼	23	36	New England Journal of Medicine gives favorable review to new drug for Parkinson's disease
[illegible]	18¼	17	888	Polo Avenue supplies and pre-need insurance businesses, valued in excess of $225 million, on sale
[illegible]	20¼	17	15	Company could not provide reason for stock's sharp rise

The Worst Performing Stocks

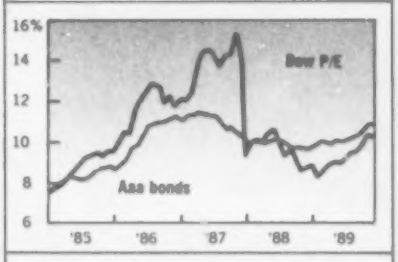
Company	Price	2-week change	P/E	Reason
Pinnacle West Capital	7¼	–22%	NA	Thrift agency mandates strengthening of company's balance sheet
Questron	24¼	–18	18	Fourth-quarter earnings were below expectations
Allergan	15½	–18	NA	CEO gives gloomy outlook for eye-care industry because of intense competition
Bank of New England	14¼	–16	5	Plans restructuring and cost-cutting moves, including sale of 53 branches
Compaq Computer	91	–14	11	Fallout continues from negative announcement about fourth-quarter earnings

Note: All data for periods ending 11/15/89. Wilshire index reflects price performance. It differs slightly from market value of outstanding issues because of retirements of equity since index was created. Stocks listed above have market capitalizations of $500 million or more. [1]Capitalization-weighted, prepared by Wilshire Associates, Santa Monica, Calif. [2]Morgan Stanley Capital International Perspective. [3]For period ending 11/10/89. A. Ariel, Cornell University, using Ford Database from Ford Investor Services. [4]Knight-Ridder Financial information. [5]A basis point is equal to one-hundredth of a percentage point. NA: Not applicable. NM: Not meaningful.

What the Analysts Think

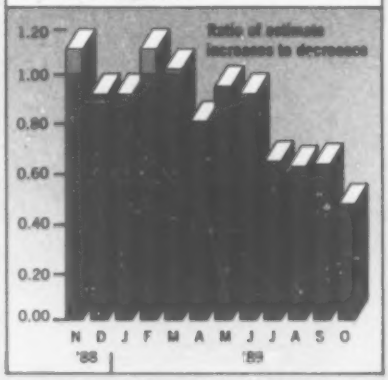
Edited by Steven Ramos

Dow P/E * vs. Aaa bonds †



*Dow P/E is the recent price of the Dow divided by estimated earnings over the next 12 months. †Projected price-to-coupon ratio for Moody's Aaa corporate bond index.

S&P 500 companies



Forecasting the S&P 500

Year	Estimated P/E	% change current estimate vs. 3 months ago	Expected year-to-year EPS growth
1988[1]	13.3	NA	39%
1989	13.2	–7%	1
1990	11.5	–3	14

1989 estimates for major industry groups

Rising estimates	Falling estimates
toys	money center banks
home building	machine tools
shoes	airlines
entertainment	leisure time
department stores	misc transportation

Santa's coming to town but making selective visits. Analysts have been increasing their earnings estimates for toy companies such as Tonka and Mattel. Just the opposite is happening with money center banks (more loan writeoffs) and important groups such as airlines and machine tools. For corporate America as a whole, analysts expect earnings on the Standard & Poor's 500 to rise 1% in 1989 and 14% next year. That's a real comedown: In 1988 profits of the S&P 500 climbed 39% over 1987. An earlier round of writeoffs in the banking industry in 1987 made 1988 look great by comparison. The current forecasts are, of course, subject to change, and that seems to be just what analysts are doing. The center graph compares the number of estimate increases to decreases on the S&P 500. Last March analysts increased about 10 estimates for every 10 they lowered. The latest tally shows that the people on Wall Street are lowering 22 estimates for every 10 they raise.

This information comes to us from the Institutional Brokers Estimate System, a division of New York-based Lynch, Jones & Ryan Investment Services. This firm collects and tabulates earnings estimates from more than 3,000 Wall Street security analysts.

Who's Hot

These companies show the greatest increases in estimates over the past three months.[2]

Company/industry	1988 EPS	1989 estimate: recent	1989 estimate: 3-mo chg	P/E	3-mo price chg	Reason
FirstFed Michigan/savings & loan	$3.22	$1.15	137%	14	–18%	Gains from sale of loans and securities
WLR Foods/food processors	2.48	2.92[3]	69	8	–15	Increased turkey and chicken demand, lower costs
Sci-Med Life Sys/medical supplies	0.66	2.31	65	18	16	FDA ruling against main competitor
Bohemia/forest products	2.29	3.21	38	8	8	Higher lumber prices due to limited supply
Tonka/toys	–0.75	1.21	36	15	–16	Strong toy market and cost-cutting by company

Who's Not

These companies show the greatest decreases in estimates over the past three months.[2]

Company/industry	1989 EPS	1989 estimate: recent	1989 estimate: 3-mo chg	P/E	3-mo price chg	Reason
Time Warner/communications	$5.01	$–6.95	–216%	NM	–8%	Losses expected due to cost of Warner Commun merger
Unisys/computers	3.58	–1.13	–184	NM	–33	Disappointing high-end mainframe sales
Northrop/defense	2.22	–0.40	–156	NM	–25	Orders for B-2 Stealth bomber are still uncertain
Cummins Engine/machinery	–1.83	–0.52	–110	NM	–22	Increased warranty expenses due to engine defects
National Education/communications	1.57	0.03	–97	NM	–54	Continued losses at Applied Learning subsidiary

[1]Actual. [2]Companies with market capitalization of $100 million or more. [3]1990 estimate. Earnings projections are Wall Street consensus estimates. Data from over 3,000 security analysts are compiled and updated continually by the Institutional Brokers Estimate System (IBES), a service of Lynch, Jones & Ryan Investment Services, New York. Aaa bond yield forecasts supplied by Blue Chip Economic Advisors. NA: Not available. NM: Not meaningful.